

SEQUENCE LISTING

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<110> Murray, Richard
Glynne, Richard
Watson, Susan R.
EOS Biotechnology, Inc.

<120> Novel Methods of Diagnosis of Angiogenesis,
Compositions and Methods of Screening for Angiogenesis
Modulators

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<140> US 09/784,356

<141> 2001-02-14

<150> US 60/148,425

<151> 1999-08-11

<150> US 09/637,977

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<212> DNA

<213> Homo sapiens

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<211> 1204

<212> DNA

<213> Homo sapiens

<400> 46

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<211> 3161

<212> DNA

<213> Homo sapiens

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<211> 5722

<212> DNA

<213> Homo sapiens

<400> 48

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<211> 3864

<212> DNA

<213> Homo sapiens

<400> 61

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<211> 2494

<212> DNA

<213> Homo sapiens

<400> 62

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<211> 2415

<212> DNA

<213> Homo sapiens

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 <211> 4198
 <212> DNA
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<210> 68

<211> 2279

<212> DNA

<213> Homo sapiens

<400> 68

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tctgccactc	agccgcggcc	ccgtgccagc	caaaccacc	gtgctcttcg	agaagatggg	180
cgtgggccc	ctggacatgt	atgtgctgca	cccgcctcc	gcccgcggcg	agcgcacgct	240
ggcctctgtg	tgcgcctgc	tgggtgtggca	ccccgcggcg	cccggcgaga	agtggtgtcg	300
cgtgctgttc	cccggttgca	ccccgcggcg	ctgcctcctg	gacggcctgg	tccgcctgca	360
gcacttgagg	ttcctgcgag	agcccgtggg	gacgccccag	gacctggagg	ggccggggcg	420
agccgagagc	aaagagagcg	tgggctccc	ggacagctcg	aagagagagg	gcctcctggc	480
caccaccctc	agacctggcc	aggagcgccc	tggggtggcc	cgcaaggagc	cagcacgggc	540
tgaggcccca	cgcaagactg	agaaagaagc	caagaccccc	cgggagttag	agaaagaccc	600
caaaccgagt	gtctcccggg	cccagcccg	ggaggtgcgc	cgggcagcct	cttctgtgcc	660
caacctcaag	aagacgaatg	cccaggcgcc	acccaagccc	cgcaaagcgc	ccagcacgtc	720
ccactctggc	ttcccgcggg	tggcaaattg	accccgagc	ccgcccagcc	tccgatgtgg	780
agaagccagc	ccccccagtg	cagcctgcgg	ctctccggcc	tcccagctgg	tggccacgcc	840
cagcctggag	ctggggccga	tcccagccgg	ggaggagaag	gcactggagc	tgcccttggc	900
cgccagctca	atccc aaggc	cacgcacacc	ctcccctgag	tcccaccgga	gccccgcaga	960
gggcagcgag	cggctgtcgc	tgagcccact	gcgggggcggg	gaggccgggc	cagacgcctc	1020
accacacagt	accacaccca	cggtgaccac	gccctcacta	cccgcagagg	tgggctcccc	1080
gcactcgacc	gaggtggacg	agtcctgtgc	ggtgtccttt	gagcaggtgc	tgcgcgccatc	1140
cgccccacc	agtgaggctg	ggctgagcct	cccgtgcgt	ggcccccggg	cgcggcgctc	1200
ggcttcccc	cacgatgtgg	acctgtgcct	ggtgtcacc	tgtgaatttg	agcatcgcaa	1260
ggcggtgcca	atggcacccg	cacctgcgtc	ccccggcagc	tcgaatgaca	gcagtgcgcc	1320
gtcacaggaa	cgggcaggtg	ggctgggggc	cagaggagacg	ccaccacat	cggtcagcga	1380
gtccctgccc	accctgtctg	actcggatcc	cgtgcccctg	gccccgggtg	cggcagactc	1440


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agacgaagac acagaggggt ttggagtgccc tgcggcagac cctttgcctg accccctcaa 1500
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<210> 69
<211> 229
<212> PRT
<213> Homo sapiens

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<400> 69
Met Gly Asp Lys Ile Trp Leu Pro Phe Pro Val Leu Leu Leu Ala Ala
1 5 10 15
Leu Pro Pro Val Leu Leu Pro Gly Ala Ala Gly Phe Thr Pro Ser Leu
20 25 30
Asp Ser Asp Phe Thr Phe Thr Leu Pro Ala Gly Gln Lys Glu Cys Phe
35 40 45
Tyr Gln Pro Met Pro Leu Lys Ala Ser Leu Glu Ile Glu Tyr Gln Val
50 55 60
Leu Asp Gly Ala Gly Leu Asp Ile Asp Phe His Leu Ala Ser Pro Glu
65 70 75 80
Gly Lys Thr Leu Val Phe Glu Gln Arg Lys Ser Asp Gly Val His Thr
85 90 95
Val Glu Thr Glu Val Gly Asp Tyr Met Phe Cys Phe Asp Asn Thr Phe
100 105 110
Ser Thr Ile Ser Glu Lys Val Ile Phe Phe Glu Leu Ile Leu Asp Asn
115 120 125
Met Gly Glu Gln Ala Gln Glu Gln Glu Asp Trp Lys Lys Tyr Ile Thr
130 135 140
Gly Thr Asp Ile Leu Asp Met Lys Leu Glu Asp Ile Leu Glu Ser Ile
145 150 155 160
Asn Ser Ile Lys Ser Arg Leu Ser Lys Ser Gly His Ile Gln Thr Leu
165 170 175
Leu Arg Ala Phe Glu Ala Arg Asp Arg Asn Ile Gln Glu Ser Asn Phe
180 185 190
Asp Arg Val Asn Phe Trp Ser Met Val Asn Leu Val Val Met Val Val
195 200 205
Val Ser Ala Ile Gln Val Tyr Met Leu Lys Ser Leu Phe Glu Asp Lys
210 215 220
Arg Lys Ser Arg Thr
225

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<210> 70
<211> 381
<212> PRT
<213> Homo sapiens

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<400> 70
Met Gly Pro Thr Ser Val Pro Leu Val Lys Ala His Arg Ser Ser Val
1 5 10 15

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Ser Asp Tyr Val Asn Tyr Asp Ile Ile Val Arg His Tyr Asn Tyr Thr
 20 25 30
 Gly Lys Leu Asn Ile Ser Ala Asp Lys Glu Asn Ser Ile Lys Leu Thr
 35 40 45
 Ser Val Val Phe Ile Leu Ile Cys Cys Phe Ile Ile Leu Glu Asn Ile
 50 55 60
 Phe Val Leu Leu Thr Ile Trp Lys Thr Lys Lys Phe His Arg Pro Met
 65 70 75 80
 Tyr Tyr Phe Ile Gly Asn Leu Ala Leu Ser Asp Leu Leu Ala Gly Val
 85 90 95
 Ala Tyr Thr Ala Asn Leu Leu Leu Ser Gly Ala Thr Thr Tyr Lys Leu
 100 105 110
 Thr Pro Ala Gln Trp Phe Leu Arg Glu Gly Ser Met Phe Val Ala Leu
 115 120 125
 Ser Ala Ser Val Phe Ser Leu Leu Ala Ile Ala Ile Glu Arg Tyr Ile
 130 135 140
 Thr Met Leu Lys Met Lys Leu His Asn Gly Ser Asn Asn Phe Arg Leu
 145 150 155 160
 Phe Leu Leu Ile Ser Ala Cys Trp Val Ile Ser Leu Ile Leu Gly Gly
 165 170 175
 Leu Pro Ile Met Gly Trp Asn Cys Ile Ser Ala Leu Ser Ser Cys Ser
 180 185 190
 Thr Val Leu Pro Leu Tyr His Lys His Tyr Ile Leu Phe Cys Thr Thr
 195 200 205
 Val Phe Thr Leu Leu Leu Leu Ser Ile Val Ile Leu Tyr Cys Arg Ile
 210 215 220
 Tyr Ser Leu Val Arg Thr Arg Ser Arg Arg Leu Thr Phe Arg Lys Asn
 225 230 235 240
 Ile Ser Lys Ala Ser Arg Ser Ser Glu Asn Val Ala Leu Leu Lys Thr
 245 250 255
 Val Ile Ile Val Leu Ser Val Phe Ile Ala Cys Trp Ala Pro Leu Phe
 260 265 270
 Ile Leu Leu Leu Leu Asp Val Gly Cys Lys Val Lys Thr Cys Asp Ile
 275 280 285
 Leu Phe Arg Ala Glu Tyr Phe Leu Val Leu Ala Val Leu Asn Ser Gly
 290 295 300
 Thr Asn Pro Ile Ile Tyr Thr Leu Thr Asn Lys Glu Met Arg Arg Ala
 305 310 315 320
 Phe Ile Arg Ile Met Ser Cys Cys Lys Cys Pro Ser Gly Asp Ser Ala
 325 330 335
 Gly Lys Phe Lys Arg Pro Ile Ile Ala Gly Met Glu Phe Ser Arg Ser
 340 345 350
 Lys Ser Asp Asn Ser Ser His Pro Gln Lys Asp Glu Gly Asp Asn Pro
 355 360 365
 Glu Thr Ile Met Ser Ser Gly Asn Val Asn Ser Ser Ser
 370 375 380

<210> 71
 <211> 679
 <212> PRT
 <213> Homo sapiens

<400> 71
 Met Ala Thr Leu Ile Thr Ser Thr Thr Ala Ala Thr Ala Ala Ser Gly
 1 5 10 15
 Pro Leu Val Asp Tyr Leu Trp Met Leu Ile Leu Gly Phe Ile Ile Ala
 20 25 30
 Phe Val Leu Ala Phe Ser Val Gly Ala Asn Asp Val Ala Asn Ser Phe
 35 40 45
 Gly Thr Ala Val Gly Ser Gly Val Val Thr Leu Lys Gln Ala Cys Ile
 50 55 60

Leu	Ala	Ser	Ile	Phe	Glu	Thr	Val	Gly	Ser	Val	Leu	Leu	Gly	Ala	Lys
65					70					75					80
Val	Ser	Glu	Thr	Ile	Arg	Lys	Gly	Leu	Ile	Asp	Val	Glu	Met	Tyr	Asn
				85					90					95	
Ser	Thr	Gln	Gly	Leu	Leu	Met	Ala	Gly	Ser	Val	Ser	Ala	Met	Phe	Gly
			100					105					110		
Ser	Ala	Val	Trp	Gln	Leu	Val	Ala	Ser	Phe	Leu	Lys	Leu	Pro	Ile	Ser
		115					120					125			
Gly	Thr	His	Cys	Ile	Val	Gly	Ala	Thr	Ile	Gly	Phe	Ser	Leu	Val	Ala
	130					135					140				
Lys	Gly	Gln	Glu	Gly	Val	Lys	Trp	Ser	Glu	Leu	Ile	Lys	Ile	Val	Met
145					150					155					160
Ser	Trp	Phe	Val	Ser	Pro	Leu	Leu	Ser	Gly	Ile	Met	Ser	Gly	Ile	Leu
				165					170					175	
Phe	Phe	Leu	Val	Arg	Ala	Phe	Ile	Leu	His	Lys	Ala	Asp	Pro	Val	Pro
			180					185					190		
Asn	Gly	Leu	Arg	Ala	Leu	Pro	Val	Phe	Tyr	Ala	Cys	Thr	Val	Gly	Ile
		195					200					205			
Asn	Leu	Phe	Ser	Ile	Met	Tyr	Thr	Gly	Ala	Pro	Leu	Leu	Gly	Phe	Asp
		210				215					220				
Lys	Leu	Pro	Leu	Trp	Gly	Thr	Ile	Leu	Ile	Ser	Val	Gly	Cys	Ala	Val
225					230					235					240
Phe	Cys	Ala	Leu	Ile	Val	Trp	Phe	Phe	Val	Cys	Pro	Arg	Met	Lys	Arg
				245					250					255	
Lys	Ile	Glu	Arg	Glu	Ile	Lys	Cys	Ser	Pro	Ser	Glu	Ser	Pro	Leu	Met
			260					265					270		
Glu	Lys	Lys	Asn	Ser	Leu	Lys	Glu	Asp	His	Glu	Glu	Thr	Lys	Leu	Ser
		275					280					285			
Val	Gly	Asp	Ile	Glu	Asn	Lys	His	Pro	Val	Ser	Glu	Val	Gly	Pro	Ala
		290				295					300				
Thr	Val	Pro	Leu	Gln	Ala	Val	Val	Glu	Glu	Arg	Thr	Val	Ser	Phe	Lys
305					310					315					320
Leu	Gly	Asp	Leu	Glu	Glu	Ala	Pro	Glu	Arg	Glu	Arg	Leu	Pro	Ser	Val
				325					330					335	
Asp	Leu	Lys	Glu	Glu	Thr	Ser	Ile	Asp	Ser	Thr	Val	Asn	Gly	Ala	Val
			340					345					350		
Gln	Leu	Pro	Asn	Gly	Asn	Leu	Val	Gln	Phe	Ser	Gln	Ala	Val	Ser	Asn
		355					360					365			
Gln	Ile	Asn	Ser	Ser	Gly	His	Ser	Gln	Tyr	His	Thr	Val	His	Lys	Asp
		370				375					380				
Ser	Gly	Leu	Tyr	Lys	Glu	Leu	Leu	His	Lys	Leu	His	Leu	Ala	Lys	Val
385					390					395					400
Gly	Asp	Cys	Met	Gly	Asp	Ser	Gly	Asp	Lys	Pro	Leu	Arg	Arg	Asn	Asn
				405					410					415	
Ser	Tyr	Thr	Ser	Tyr	Thr	Met	Ala	Ile	Cys	Gly	Met	Pro	Leu	Asp	Ser
				420				425					430		
Phe	Arg	Ala	Lys	Glu	Gly	Glu	Gln	Lys	Gly	Glu	Glu	Met	Glu	Lys	Leu
		435					440					445			
Thr	Trp	Pro	Asn	Ala	Asp	Ser	Lys	Lys	Arg	Ile	Arg	Met	Asp	Ser	Tyr
		450				455					460				
Thr	Ser	Tyr	Cys	Asn	Ala	Val	Ser	Asp	Leu	His	Ser	Ala	Ser	Glu	Ile
465					470					475					480
Asp	Met	Ser	Val	Lys	Ala	Ala	Met	Gly	Leu	Gly	Asp	Arg	Lys	Gly	Ser
				485				490						495	
Asn	Gly	Ser	Leu	Glu	Glu	Trp	Tyr	Asp	Gln	Asp	Lys	Pro	Glu	Val	Ser
			500					505					510		
Leu	Leu	Phe	Gln	Phe	Leu	Gln	Ile	Leu	Thr	Ala	Cys	Phe	Gly	Ser	Phe
		515					520					525			
Ala	His	Gly	Gly	Asn	Asp	Val	Ser	Asn	Ala	Ile	Gly	Pro	Leu	Val	Ala
						530					540				

Leu Tyr Leu Val Tyr Asp Thr Gly Asp Val Ser Ser Lys Val Ala Thr
 545 550 555 560
 Pro Ile Trp Leu Leu Tyr Gly Gly Val Gly Ile Cys Val Gly Leu
 565 570 575
 Trp Val Trp Gly Arg Arg Val Ile Gln Thr Met Gly Lys Asp Leu Thr
 580 585 590
 Pro Ile Thr Pro Ser Ser Gly Phe Ser Ile Glu Leu Ala Ser Ala Leu
 595 600 605
 Thr Val Val Ile Ala Ser Asn Ile Gly Leu Pro Ile Ser Thr Thr His
 610 615 620
 Cys Lys Val Gly Ser Val Val Ser Val Gly Trp Leu Arg Ser Lys Lys
 625 630 635 640
 Ala Val Asp Trp Arg Leu Phe Arg Asn Ile Phe Met Ala Trp Phe Val
 645 650 655
 Thr Val Pro Ile Ser Gly Val Ile Ser Ala Ala Ile Met Ala Ile Phe
 660 665 670
 Arg Tyr Val Ile Leu Arg Met
 675

<210> 72
 <211> 476
 <212> PRT
 <213> Homo sapiens

<400> 72
 Met Met His Leu Ala Phe Leu Val Leu Leu Cys Leu Pro Val Cys Ser
 1 5 10 15
 Ala Tyr Pro Leu Ser Gly Ala Ala Lys Glu Glu Asp Ser Asn Lys Asp
 20 25 30
 Leu Ala Gln Gln Tyr Leu Glu Lys Tyr Tyr Asn Leu Glu Lys Asp Val
 35 40 45
 Lys Gln Phe Arg Arg Lys Asp Ser Asn Leu Ile Val Lys Lys Ile Gln
 50 55 60
 Gly Met Gln Lys Phe Leu Gly Leu Glu Val Thr Gly Lys Leu Asp Thr
 65 70 75 80
 Asp Thr Leu Glu Val Met Arg Lys Pro Arg Cys Gly Val Pro Asp Val
 85 90 95
 Gly His Phe Ser Ser Phe Pro Gly Met Pro Lys Trp Arg Lys Thr His
 100 105 110
 Leu Thr Tyr Arg Ile Val Asn Tyr Thr Pro Asp Leu Pro Arg Asp Ala
 115 120 125
 Val Asp Ser Ala Ile Glu Lys Ala Leu Lys Val Trp Glu Glu Val Thr
 130 135 140
 Pro Leu Thr Phe Ser Arg Leu Tyr Glu Gly Glu Ala Asp Ile Met Ile
 145 150 155 160
 Ser Phe Ala Val Lys Glu His Gly Asp Phe Tyr Ser Phe Asp Gly Pro
 165 170 175
 Gly His Ser Leu Ala His Ala Tyr Pro Pro Gly Pro Gly Leu Tyr Gly
 180 185 190
 Asp Ile His Phe Asp Asp Asp Glu Lys Trp Thr Glu Asp Ala Ser Gly
 195 200 205
 Thr Asn Leu Phe Leu Val Ala Ala His Glu Leu Gly His Ser Leu Gly
 210 215 220
 Leu Phe His Ser Ala Asn Thr Glu Ala Leu Met Tyr Pro Leu Tyr Asn
 225 230 235 240
 Ser Phe Thr Glu Leu Ala Gln Phe Arg Leu Ser Gln Asp Asp Val Asn
 245 250 255
 Gly Ile Gln Ser Leu Tyr Gly Pro Pro Pro Ala Ser Thr Glu Glu Pro
 260 265 270
 Leu Val Pro Thr Lys Ser Val Pro Ser Gly Ser Glu Met Pro Ala Lys
 275 280 285

Cys Asp Pro Ala Leu Ser Phe Asp Ala Ile Ser Thr Leu Arg Gly Glu
 290 295 300
 Tyr Leu Phe Phe Lys Asp Arg Tyr Phe Trp Arg Arg Ser His Trp Asn
 305 310 315 320
 Pro Glu Pro Glu Phe His Leu Ile Ser Ala Phe Trp Pro Ser Leu Pro
 325 330 335
 Ser Tyr Leu Asp Ala Ala Tyr Glu Val Asn Ser Arg Asp Thr Val Phe
 340 345 350
 Ile Phe Lys Gly Asn Glu Phe Trp Ala Ile Arg Gly Asn Glu Val Gln
 355 360 365
 Ala Gly Tyr Pro Arg Gly Ile His Thr Leu Gly Phe Pro Pro Thr Ile
 370 375 380
 Arg Lys Ile Asp Ala Ala Val Ser Asp Lys Glu Lys Lys Lys Thr Tyr
 385 390 395 400
 Phe Phe Ala Ala Asp Lys Tyr Trp Arg Phe Asp Glu Asn Ser Gln Ser
 405 410 415
 Met Glu Gln Gly Phe Pro Arg Leu Ile Ala Asp Asp Phe Pro Gly Val
 420 425 430
 Glu Pro Lys Val Asp Ala Val Leu Gln Ala Phe Gly Phe Phe Tyr Phe
 435 440 445
 Phe Ser Gly Ser Ser Gln Phe Glu Phe Asp Pro Asn Ala Arg Met Val
 450 455 460
 Thr His Ile Leu Lys Ser Asn Ser Trp Leu His Cys
 465 470 475

<210> 73
 <211> 528
 <212> PRT
 <213> Homo sapiens

<400> 73
 Met Arg Cys Ala Leu Ala Leu Ser Ala Leu Leu Leu Leu Leu Ser Thr
 1 5 10 15
 Pro Pro Leu Leu Pro Ser Ser Pro Ser Pro Ser Pro Ser Pro Ser Pro
 20 25 30
 Ser Gln Asn Ala Thr Gln Thr Thr Thr Asp Ser Ser Asn Lys Thr Ala
 35 40 45
 Pro Thr Pro Ala Ser Ser Val Thr Ile Met Ala Thr Asp Thr Ala Gln
 50 55 60
 Gln Ser Thr Val Pro Thr Ser Lys Ala Asn Glu Ile Leu Ala Ser Val
 65 70 75 80
 Lys Ala Thr Thr Leu Gly Val Ser Ser Asp Ser Pro Gly Thr Thr Thr
 85 90 95
 Leu Ala Gln Gln Val Ser Gly Pro Val Asn Thr Thr Val Ala Arg Gly
 100 105 110
 Gly Gly Ser Gly Asn Pro Thr Thr Thr Ile Glu Ser Pro Lys Ser Thr
 115 120 125
 Lys Ser Ala Asp Thr Thr Thr Val Ala Thr Ser Thr Ala Thr Ala Lys
 130 135 140
 Pro Asn Thr Thr Ser Ser Gln Asn Gly Ala Glu Asp Thr Thr Asn Ser
 145 150 155 160
 Gly Gly Lys Ser Ser His Ser Val Thr Thr Asp Leu Thr Ser Thr Lys
 165 170 175
 Ala Glu His Leu Thr Thr Pro His Pro Thr Ser Pro Leu Ser Pro Arg
 180 185 190
 Gln Pro Thr Leu Thr His Pro Val Ala Thr Pro Thr Ser Ser Gly His
 195 200 205
 Asp His Leu Met Lys Ile Ser Ser Ser Ser Ser Thr Val Ala Ile Pro
 210 215 220
 Gly Tyr Thr Phe Thr Ser Pro Gly Met Thr Thr Thr Leu Pro Ser Ser
 225 230 235 240

Val Ile Ser Gln Arg Thr Gln Gln Thr Ser Ser Gln Met Pro Ala Ser
 245 250 255
 Ser Thr Ala Pro Ser Ser Gln Glu Thr Val Gln Pro Thr Ser Pro Ala
 260 265 270
 Thr Ala Leu Arg Thr Pro Thr Leu Pro Glu Thr Met Ser Ser Ser Pro
 275 280 285
 Thr Ala Ala Ser Thr Thr His Arg Tyr Pro Lys Thr Pro Ser Pro Thr
 290 295 300
 Val Ala His Glu Ser Asn Trp Ala Lys Cys Glu Asp Leu Glu Thr Gln
 305 310 315 320
 Thr Gln Ser Glu Lys Gln Leu Val Leu Asn Leu Thr Gly Asn Thr Leu
 325 330 335
 Cys Ala Gly Gly Ala Ser Asp Glu Lys Leu Ile Ser Leu Ile Cys Arg
 340 345 350
 Ala Val Lys Ala Thr Phe Asn Pro Ala Gln Asp Lys Cys Gly Ile Arg
 355 360 365
 Leu Ala Ser Val Pro Gly Ser Gln Thr Val Val Val Lys Glu Ile Thr
 370 375 380
 Ile His Thr Lys Leu Pro Ala Lys Asp Val Tyr Glu Arg Leu Lys Asp
 385 390 395 400
 Lys Trp Asp Glu Leu Lys Glu Ala Gly Val Ser Asp Met Lys Leu Gly
 405 410 415
 Asp Gln Gly Pro Glu Glu Ala Glu Asp Arg Phe Ser Met Pro Leu
 420 425 430
 Ile Ile Thr Ile Val Cys Met Ala Ser Phe Leu Leu Leu Val Ala Ala
 435 440 445
 Leu Tyr Gly Cys Cys His Gln Arg Leu Ser Gln Arg Lys Asp Gln Gln
 450 455 460
 Arg Leu Thr Glu Glu Leu Gln Thr Val Glu Asn Gly Tyr His Asp Asn
 465 470 475 480
 Pro Thr Leu Glu Val Met Glu Thr Ser Ser Glu Met Gln Glu Lys Lys
 485 490 495
 Val Val Ser Leu Asn Gly Glu Leu Gly Asp Ser Trp Ile Val Pro Leu
 500 505 510
 Asp Asn Leu Thr Lys Asp Asp Leu Asp Glu Glu Glu Asp Thr His Leu
 515 520 525

<210> 74
 <211> 493
 <212> PRT
 <213> Homo sapiens

<400> 74
 Met Leu Lys Ala Leu Phe Leu Thr Met Leu Thr Leu Ala Leu Val Lys
 1 5 10 15
 Ser Gln Asp Thr Glu Glu Thr Ile Thr Tyr Thr Gln Cys Thr Asp Gly
 20 25 30
 Tyr Glu Trp Asp Pro Val Arg Gln Gln Cys Lys Asp Ile Asp Glu Cys
 35 40 45
 Asp Ile Val Pro Asp Ala Cys Lys Gly Gly Met Lys Cys Val Asn His
 50 55 60
 Tyr Gly Gly Tyr Leu Cys Leu Pro Lys Thr Ala Gln Ile Ile Val Asn
 65 70 75 80
 Asn Glu Gln Pro Gln Gln Glu Thr Gln Pro Ala Glu Gly Thr Ser Gly
 85 90 95
 Ala Thr Thr Gly Val Val Ala Ala Ser Ser Met Ala Thr Ser Gly Val
 100 105 110
 Leu Pro Gly Gly Phe Val Ala Ser Ala Ala Val Ala Gly Pro
 115 120 125
 Glu Met Gln Thr Gly Arg Asn Asn Phe Val Ile Arg Arg Asn Pro Ala
 130 135 140

Asp	Pro	Gln	Arg	Ile	Pro	Ser	Asn	Pro	Ser	His	Arg	Ile	Gln	Cys	Ala	145	150	155	160
Ala	Gly	Tyr	Glu	Gln	Ser	Glu	His	Asn	Val	Cys	Gln	Asp	Ile	Asp	Glu	165	170	175	
Cys	Thr	Ala	Gly	Thr	His	Asn	Cys	Arg	Ala	Asp	Gln	Val	Cys	Ile	Asn	180	185	190	
Leu	Arg	Gly	Ser	Phe	Ala	Cys	Gln	Cys	Pro	Pro	Gly	Tyr	Gln	Lys	Arg	195	200	205	
Gly	Glu	Gln	Cys	Val	Asp	Ile	Asp	Glu	Cys	Thr	Ile	Pro	Pro	Tyr	Cys	210	215	220	
His	Gln	Arg	Cys	Val	Asn	Thr	Pro	Gly	Ser	Phe	Tyr	Cys	Gln	Cys	Ser	225	230	235	240
Pro	Gly	Phe	Gln	Leu	Ala	Ala	Asn	Asn	Tyr	Thr	Cys	Val	Asp	Ile	Asn	245	250	255	
Glu	Cys	Asp	Ala	Ser	Asn	Gln	Cys	Ala	Gln	Gln	Cys	Tyr	Asn	Ile	Leu	260	265	270	
Gly	Ser	Phe	Ile	Cys	Gln	Cys	Asn	Gln	Gly	Tyr	Glu	Leu	Ser	Ser	Asp	275	280	285	
Arg	Leu	Asn	Cys	Glu	Asp	Ile	Asp	Glu	Cys	Arg	Thr	Ser	Ser	Tyr	Leu	290	295	300	
Cys	Gln	Tyr	Gln	Cys	Val	Asn	Glu	Pro	Gly	Lys	Phe	Ser	Cys	Met	Cys	305	310	315	320
Pro	Gln	Gly	Tyr	Gln	Val	Val	Arg	Ser	Arg	Thr	Cys	Gln	Asp	Ile	Asn	325	330	335	
Glu	Cys	Glu	Thr	Asn	Glu	Cys	Arg	Glu	Asp	Glu	Met	Cys	Trp	Asn		340	345	350	
Tyr	His	Gly	Gly	Phe	Arg	Cys	Tyr	Pro	Arg	Asn	Pro	Cys	Gln	Asp	Pro	355	360	365	
Tyr	Ile	Leu	Thr	Pro	Glu	Asn	Arg	Cys	Val	Cys	Pro	Val	Ser	Asn	Ala	370	375	380	
Met	Cys	Arg	Glu	Leu	Pro	Gln	Ser	Ile	Val	Tyr	Lys	Tyr	Met	Ser	Ile	385	390	395	400
Arg	Ser	Asp	Arg	Ser	Val	Pro	Ser	Asp	Ile	Phe	Gln	Ile	Gln	Ala	Thr	405	410	415	
Thr	Ile	Tyr	Ala	Asn	Thr	Ile	Asn	Thr	Phe	Arg	Ile	Lys	Ser	Gly	Asn	420	425	430	
Glu	Asn	Gly	Glu	Phe	Tyr	Leu	Arg	Gln	Thr	Ser	Pro	Val	Ser	Ala	Met	435	440	445	
Leu	Val	Leu	Val	Lys	Ser	Leu	Ser	Gly	Pro	Arg	Glu	His	Ile	Val	Asp	450	455	460	
Leu	Glu	Met	Leu	Thr	Val	Ser	Ser	Ile	Gly	Thr	Phe	Arg	Thr	Ser	Ser	465	470	475	480
Val	Leu	Arg	Leu	Thr	Ile	Ile	Val	Gly	Pro	Phe	Ser	Phe				485	490		

<210> 75
 <211> 646
 <212> PRT
 <213> Homo sapiens

Met	Gly	Leu	Pro	Arg	Leu	Val	Cys	Ala	Phe	Leu	Leu	Ala	Ala	Cys	Cys	<400> 75
1				5					10					15		
Cys	Cys	Pro	Arg	Val	Ala	Gly	Val	Pro	Gly	Glu	Ala	Glu	Gln	Pro	Ala	
			20					25					30			
Pro	Glu	Leu	Val	Glu	Val	Glu	Val	Gly	Ser	Thr	Ala	Leu	Lys	Cys		
			35				40					45				
Gly	Leu	Ser	Gln	Ser	Gln	Gly	Asn	Leu	Ser	His	Val	Asp	Trp	Phe	Ser	
	50				55					60						
Val	His	Lys	Glu	Lys	Arg	Thr	Leu	Ile	Phe	Arg	Val	Arg	Gln	Gly	Gln	
65				70					75					80		

Gly	Gln	Ser	Glu	Pro	Gly	Glu	Tyr	Glu	Gln	Arg	Leu	Ser	Leu	Gln	Asp	
				85					90					95		
Arg	Gly	Ala	Thr	Leu	Ala	Leu	Thr	Gln	Val	Thr	Pro	Gln	Asp	Glu	Arg	
			100					105					110			
Ile	Phe	Leu	Cys	Gln	Gly	Lys	Arg	Pro	Arg	Ser	Gln	Glu	Tyr	Arg	Ile	
		115					120					125				
Gln	Leu	Arg	Val	Tyr	Lys	Ala	Pro	Glu	Glu	Pro	Asn	Ile	Gln	Val	Asn	
	130					135					140					
Pro	Leu	Gly	Ile	Pro	Val	Asn	Ser	Lys	Glu	Pro	Glu	Glu	Val	Ala	Thr	
145					150					155					160	
Cys	Val	Gly	Arg	Asn	Gly	Tyr	Pro	Ile	Pro	Gln	Val	Ile	Trp	Tyr	Lys	
				165					170					175		
Asn	Gly	Arg	Pro	Leu	Lys	Glu	Glu	Lys	Asn	Arg	Val	His	Ile	Gln	Ser	
			180					185					190			
Ser	Gln	Thr	Val	Glu	Ser	Ser	Gly	Leu	Tyr	Thr	Leu	Gln	Ser	Ile	Leu	
		195					200					205				
Lys	Ala	Gln	Leu	Val	Lys	Glu	Asp	Lys	Asp	Ala	Gln	Phe	Tyr	Cys	Glu	
	210					215					220					
Leu	Asn	Tyr	Arg	Leu	Pro	Ser	Gly	Asn	His	Met	Lys	Glu	Ser	Arg	Glu	
225					230					235					240	
Val	Thr	Val	Pro	Val	Phe	Tyr	Pro	Thr	Glu	Lys	Val	Trp	Leu	Glu	Val	
				245					250					255		
Glu	Pro	Val	Gly	Met	Leu	Lys	Glu	Gly	Asp	Arg	Val	Glu	Ile	Arg	Cys	
		260					265						270			
Leu	Ala	Asp	Gly	Asn	Pro	Pro	Pro	His	Phe	Ser	Ile	Ser	Lys	Gln	Asn	
	275						280					285				
Pro	Ser	Thr	Arg	Glu	Ala	Glu	Glu	Glu	Thr	Thr	Asn	Asp	Asn	Gly	Val	
	290					295					300					
Leu	Val	Leu	Glu	Pro	Ala	Arg	Lys	Glu	His	Ser	Gly	Arg	Tyr	Glu	Cys	
305					310					315					320	
Gln	Ala	Trp	Asn	Leu	Asp	Thr	Met	Ile	Ser	Leu	Leu	Ser	Glu	Pro	Gln	
			325						330					335		
Glu	Leu	Leu	Val	Asn	Tyr	Val	Ser	Asp	Val	Arg	Val	Ser	Pro	Ala	Ala	
		340						345					350			
Pro	Glu	Arg	Gln	Glu	Gly	Ser	Ser	Leu	Thr	Leu	Thr	Cys	Glu	Ala	Glu	
		355				360						365				
Ser	Ser	Gln	Asp	Leu	Glu	Phe	Gln	Trp	Leu	Arg	Glu	Glu	Thr	Asp	Gln	
	370					375					380					
Val	Leu	Glu	Arg	Gly	Pro	Val	Leu	Gln	Leu	His	Asp	Leu	Lys	Arg	Glu	
385					390					395					400	
Ala	Gly	Gly	Gly	Tyr	Arg	Cys	Val	Ala	Ser	Val	Pro	Ser	Ile	Pro	Gly	
			405						410					415		
Leu	Asn	Arg	Thr	Gln	Leu	Val	Lys	Leu	Ala	Ile	Phe	Gly	Pro	Pro	Trp	
			420					425					430			
Met	Ala	Phe	Lys	Glu	Arg	Lys	Val	Trp	Val	Lys	Glu	Asn	Met	Val	Leu	
		435				440						445				
Asn	Leu	Ser	Cys	Glu	Ala	Ser	Gly	His	Pro	Arg	Pro	Thr	Ile	Ser	Trp	
	450					455					460					
Asn	Val	Asn	Gly	Thr	Ala	Ser	Glu	Gln	Asp	Gln	Asp	Pro	Gln	Arg	Val	
465					470					475					480	
Leu	Ser	Thr	Leu	Asn	Val	Leu	Val	Thr	Pro	Glu	Leu	Leu	Glu	Thr	Gly	
			485						490					495		
Val	Glu	Cys	Thr	Ala	Ser	Asn	Asp	Leu	Gly	Lys	Asn	Thr	Ser	Ile	Leu	
			500					505					510			
Phe	Leu	Glu	Leu	Val	Asn	Leu	Thr	Thr	Leu	Thr	Pro	Asp	Ser	Asn	Thr	
	515						520					525				
Thr	Thr	Gly	Leu	Ser	Thr	Ser	Thr	Ala	Ser	Pro	His	Thr	Arg	Ala	Asn	
	530					535					540					
Ser	Thr	Ser	Thr	Glu	Arg	Lys	Leu	Pro	Glu	Pro	Glu	Ser	Arg	Gly	Val	
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[illegible]

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<210> 76
<211> 469
<212> PRT
<213> Homo sapiens
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Ser	His	Ser	Phe 20	Pro	Ala	Thr	Leu	Glu 25	Thr	Gln	Glu	Gln	Asp 30	Val	Asp	
Leu	Val	Gln 35	Lys	Tyr	Leu	Glu	Lys 40	Tyr	Tyr	Asn	Leu	Lys 45	Asn	Asp	Gly	
Arg	Gln 50	Val	Glu	Lys	Arg	Arg 55	Asn	Ser	Gly	Pro	Val 60	Val	Glu	Lys	Leu	
Lys 65	Gln	Met	Gln	Glu	Phe 70	Phe	Gly	Leu	Lys	Val 75	Thr	Gly	Lys	Pro 80	Asp	
Ala	Glu	Thr	Leu	Lys 85	Val	Met	Lys	Gln	Pro 90	Arg	Cys	Gly	Val	Pro 95	Asp	
Val	Ala	Gln	Phe 100	Val	Leu	Thr	Glu	Gly 105	Asn	Pro	Arg	Trp	Glu	Gln	Thr	
His	Leu	Thr 115	Tyr	Arg	Ile	Glu	Asn 120	Tyr	Thr	Pro	Asp	Leu 125	Pro	Arg	Ala	
Asp	Val 130	Asp	His	Ala	Ile	Glu 135	Lys	Ala	Phe	Gln	Leu 140	Trp	Ser	Asn	Val	
Thr 145	Pro	Leu	Thr	Phe	Thr	Lys 150	Val	Ser	Glu	Gly 155	Gln	Ala	Asp	Ile	Met 160	
Ile	Ser	Phe	Val	Arg 165	Gly	Asp	His	Arg	Asp 170	Asn	Ser	Pro	Phe	Asp 175	Gly	
Pro	Gly	Gly 180	Asn	Leu	Ala	His	Ala	Phe 185	Gln	Pro	Gly	Pro	Gly	Ile	Gly	
Gly	Asp	Ala 195	His	Phe	Asp	Glu	Asp 200	Glu	Arg	Trp	Thr	Asn 205	Asn	Phe	Arg	
Glu	Tyr 210	Asn	Leu	His	Arg	Val	Ala 215	Ala	His	Glu	Leu 220	Gly	His	Ser	Leu	
Gly 225	Leu	Ser	His	Ser	Thr	Asp 230	Ile	Gly	Ala	Leu 235	Met	Tyr	Pro	Ser	Tyr 240	
Thr	Phe	Ser	Gly	Asp 245	Val	Gln	Leu	Ala	Gln 250	Asp	Asp	Ile	Asp	Gly 255	Ile	
Gln	Ala	Ile	Tyr 260	Gly	Arg	Ser	Gln	Asn 265	Pro	Val	Gln	Pro	Ile	Gly 270	Pro	
Gln	Thr 275	Pro	Lys	Ala	Cys	Asp	Ser 280	Lys	Leu	Thr	Phe	Asp 285	Ala	Ile	Thr	
Thr	Ile 290	Arg	Gly	Glu	Val	Met	Phe 295	Phe	Lys	Asp	Arg	Phe	Tyr	Met	Arg	
Thr 305	Asn	Pro	Phe	Tyr	Pro	Glu	Val	Glu	Leu	Asn 315	Phe	Ile	Ser	Val	Phe 320	
Trp	Pro	Gln	Leu	Pro 325	Asn	Gly	Leu	Glu	Ala	Ala 330	Tyr	Glu	Phe	Ala	Asp	

Arg Asp Glu Val Arg Phe Phe Lys Gly Asn Lys Tyr Trp Ala Val Gln
 340 345 350
 Gly Gln Asn Val Leu His Gly Tyr Pro Lys Asp Ile Tyr Ser Ser Phe
 355 360 365
 Gly Phe Pro Arg Thr Val Lys His Ile Asp Ala Ala Leu Ser Glu Glu
 370 375 380
 Asn Thr Gly Lys Thr Tyr Phe Phe Val Ala Asn Lys Tyr Trp Arg Tyr
 385 390 395 400
 Asp Glu Tyr Lys Arg Ser Met Asp Pro Gly Tyr Pro Lys Met Ile Ala
 405 410 415
 His Asp Phe Pro Gly Ile Gly His Lys Val Asp Ala Val Phe Met Lys
 420 425 430
 Asp Gly Phe Phe Tyr Phe Phe His Gly Thr Arg Gln Tyr Lys Phe Asp
 435 440 445
 Pro Lys Thr Lys Arg Ile Leu Thr Leu Gln Lys Ala Asn Ser Trp Phe
 450 455 460
 Asn Cys Arg Lys Asn
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<210> 77
 <211> 384
 <212> PRT
 <213> Homo sapiens

<400> 77
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 Lys Glu Val Val Gly Thr Phe Lys Ala Lys Asp Leu Ile Val Thr Pro
 20 25 30
 Ala Thr Ile Leu Lys Glu Lys Pro Asp Pro Asn Asn Leu Val Phe Gly
 35 40 45
 Thr Val Phe Thr Asp His Met Leu Thr Val Glu Trp Ser Ser Glu Phe
 50 55 60
 Gly Trp Glu Lys Pro His Ile Lys Pro Leu Gln Asn Leu Ser Leu His
 65 70 75 80
 Pro Gly Ser Ser Ala Leu His Tyr Ala Val Glu Leu Phe Glu Gly Leu
 85 90 95
 Lys Ala Phe Arg Gly Val Asp Asn Lys Ile Arg Leu Phe Gln Pro Asn
 100 105 110
 Leu Asn Met Asp Arg Met Tyr Arg Ser Ala Val Arg Ala Thr Leu Pro
 115 120 125
 Val Phe Asp Lys Glu Glu Leu Leu Glu Cys Ile Gln Gln Leu Val Lys
 130 135 140
 Leu Asp Gln Glu Trp Val Pro Tyr Ser Thr Ser Ala Ser Leu Tyr Ile
 145 150 155 160
 Arg Pro Ala Phe Ile Gly Thr Glu Pro Ser Leu Gly Val Lys Lys Pro
 165 170 175
 Thr Lys Ala Leu Leu Phe Val Leu Leu Ser Pro Val Gly Pro Tyr Phe
 180 185 190
 Ser Ser Gly Thr Phe Asn Pro Val Ser Leu Trp Ala Asn Pro Lys Tyr
 195 200 205
 Val Arg Ala Trp Lys Gly Gly Thr Gly Asp Cys Lys Met Gly Gly Asn
 210 215 220
 Tyr Gly Ser Ser Leu Phe Ala Gln Cys Glu Asp Val Asp Asn Gly Cys
 225 230 235 240
 Gln Gln Val Leu Trp Leu Tyr Gly Arg Asp His Gln Ile Thr Glu Val
 245 250 255
 Gly Thr Met Asn Leu Phe Leu Tyr Trp Ile Asn Glu Asp Gly Glu Glu
 260 265 270
 Glu Leu Ala Thr Pro Pro Leu Asp Gly Ile Ile Leu Pro Gly Val Thr
 275 280 285

Arg	Arg	Cys	Ile	Leu	Asp	Leu	Ala	His	Gln	Trp	Gly	Glu	Phe	Lys	Val
	290					295					300				
Ser	Glu	Arg	Tyr	Leu	Thr	Met	Asp	Asp	Leu	Thr	Thr	Ala	Leu	Glu	Gly
305					310					315					320
Asn	Arg	Val	Arg	Glu	Met	Phe	Ser	Ser	Gly	Thr	Ala	Cys	Val	Val	Cys
				325					330					335	
Pro	Val	Ser	Asp	Ile	Leu	Tyr	Lys	Gly	Glu	Thr	Ile	His	Ile	Pro	Thr
			340					345					350		
Met	Glu	Asn	Gly	Pro	Lys	Leu	Ala	Ser	Arg	Ile	Leu	Ser	Lys	Leu	Thr
		355					360					365			
Asp	Ile	Gln	Tyr	Gly	Arg	Glu	Glu	Ser	Asp	Trp	Thr	Ile	Val	Leu	Ser
	370					375					380				

<210> 78

<211> 381

<212> PRT

<213> Homo sapiens

<400> 78

Met	His	Leu	Leu	Ala	Ile	Leu	Phe	Cys	Ala	Leu	Trp	Ser	Ala	Val	Leu
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Ala	Glu	Asn	Ser	Asp	Asp	Tyr	Asp	Leu	Met	Tyr	Val	Asn	Leu	Asp	Asn
			20					25					30		
Glu	Ile	Asp	Asn	Gly	Leu	His	Pro	Thr	Glu	Asp	Pro	Thr	Pro	Cys	Asp
		35				40						45			
Cys	Gly	Gln	Glu	His	Ser	Glu	Trp	Asp	Lys	Leu	Phe	Ile	Met	Leu	Glu
	50					55					60				
Asn	Ser	Gln	Met	Arg	Glu	Arg	Met	Leu	Leu	Gln	Ala	Thr	Asp	Asp	Val
65					70					75					80
Leu	Arg	Gly	Glu	Leu	Gln	Arg	Leu	Arg	Glu	Glu	Leu	Gly	Arg	Leu	Ala
				85					90					95	
Glu	Ser	Leu	Ala	Arg	Pro	Cys	Ala	Pro	Gly	Ala	Pro	Ala	Glu	Ala	Arg
			100					105					110		
Leu	Thr	Ser	Ala	Leu	Asp	Glu	Leu	Leu	Gln	Ala	Thr	Arg	Asp	Ala	Gly
		115				120						125			
Arg	Arg	Leu	Ala	Arg	Met	Glu	Gly	Ala	Glu	Ala	Gln	Arg	Pro	Glu	Glu
	130					135					140				
Ala	Gly	Arg	Ala	Leu	Ala	Ala	Val	Leu	Glu	Glu	Leu	Arg	Gln	Thr	Arg
145					150					155					160
Ala	Asp	Leu	His	Ala	Val	Gln	Gly	Trp	Ala	Ala	Arg	Ser	Trp	Leu	Pro
				165					170					175	
Ala	Gly	Cys	Glu	Thr	Ala	Ile	Leu	Phe	Pro	Met	Arg	Ser	Lys	Lys	Ile
			180					185					190		
Phe	Gly	Ser	Val	His	Pro	Val	Arg	Pro	Met	Arg	Leu	Glu	Ser	Phe	Ser
		195					200					205			
Ala	Cys	Ile	Trp	Val	Lys	Ala	Thr	Asp	Val	Leu	Asn	Lys	Thr	Ile	Leu
	210					215					220				
Phe	Ser	Tyr	Gly	Thr	Lys	Arg	Asn	Pro	Tyr	Glu	Ile	Gln	Leu	Tyr	Leu
225					230					235					240
Ser	Tyr	Gln	Ser	Ile	Val	Phe	Val	Val	Gly	Gly	Glu	Glu	Asn	Lys	Leu
				245					250					255	
Val	Ala	Glu	Ala	Met	Val	Ser	Leu	Gly	Arg	Trp	Thr	His	Leu	Cys	Gly
			260					265					270		
Thr	Trp	Asn	Ser	Glu	Glu	Gly	Leu	Thr	Ser	Leu	Trp	Val	Asn	Gly	Glu
		275					280					285			
Leu	Ala	Ala	Thr	Thr	Val	Glu	Met	Ala	Thr	Gly	His	Ile	Val	Pro	Glu
	290					295					300				
Gly	Gly	Ile	Leu	Gln	Ile	Gly	Gln	Glu	Lys	Asn	Gly	Cys	Cys	Val	Gly
305					310					315					320
Gly	Gly	Phe	Asp	Glu	Thr	Leu	Ala	Phe	Ser	Gly	Arg	Leu	Thr	Gly	Phe
				325					330					335	

Asn	Ile	Trp	Asp	Ser	Val	Leu	Ser	Asn	Glu	Glu	Ile	Arg	Glu	Thr	Gly
			340					345					350		
Gly	Ala	Glu	Ser	Cys	His	Ile	Arg	Gly	Asn	Ile	Val	Gly	Trp	Gly	Val
	355						360					365			
Thr	Glu	Ile	Gln	Pro	His	Gly	Gly	Ala	Gln	Tyr	Val	Ser			
	370					375					380				

<210> 79
 <211> 2813
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 <213> Homo sapiens

<400> 79															
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Leu	Pro	Gly	Thr	Leu	Cys	Ala	Glu	Gly	Thr	Arg	Gly	Arg	Ser	Ser	Thr
			20					25					30		
Ala	Arg	Cys	Ser	Leu	Phe	Gly	Ser	Asp	Phe	Val	Asn	Thr	Phe	Asp	Gly
		35					40					45			
Ser	Met	Tyr	Ser	Phe	Ala	Gly	Tyr	Cys	Ser	Tyr	Leu	Leu	Ala	Gly	Gly
	50					55					60				
Cys	Gln	Lys	Arg	Ser	Phe	Ser	Ile	Ile	Gly	Asp	Phe	Gln	Asn	Gly	Lys
65					70					75					80
Arg	Val	Ser	Leu	Ser	Val	Tyr	Leu	Gly	Glu	Phe	Phe	Asp	Ile	His	Leu
				85					90					95	
Phe	Val	Asn	Gly	Thr	Val	Thr	Gln	Gly	Asp	Gln	Arg	Val	Ser	Met	Pro
			100					105					110		
Tyr	Ala	Ser	Lys	Gly	Leu	Tyr	Leu	Glu	Thr	Glu	Ala	Gly	Tyr	Tyr	Lys
		115					120					125			
Leu	Ser	Gly	Glu	Ala	Tyr	Gly	Phe	Val	Ala	Arg	Ile	Asp	Gly	Ser	Gly
	130					135					140				
Asn	Phe	Gln	Val	Leu	Leu	Ser	Asp	Arg	Tyr	Phe	Asn	Lys	Thr	Cys	Gly
145					150					155					160
Leu	Cys	Gly	Asn	Phe	Asn	Ile	Phe	Ala	Glu	Asp	Asp	Phe	Met	Thr	Gln
				165					170					175	
Glu	Gly	Thr	Leu	Thr	Ser	Asp	Pro	Tyr	Asp	Phe	Ala	Asn	Ser	Trp	Ala
			180					185					190		
Leu	Ser	Ser	Gly	Glu	Gln	Trp	Cys	Glu	Arg	Ala	Ser	Pro	Pro	Ser	Ser
		195					200					205			
Ser	Cys	Asn	Ile	Ser	Ser	Gly	Glu	Met	Gln	Lys	Gly	Leu	Trp	Glu	Gln
	210					215					220				
Cys	Gln	Leu	Leu	Lys	Ser	Thr	Ser	Val	Phe	Ala	Arg	Cys	His	Pro	Leu
225					230					235					240
Val	Asp	Pro	Glu	Pro	Phe	Val	Ala	Leu	Cys	Glu	Lys	Thr	Leu	Cys	Glu
				245					250					255	
Cys	Ala	Gly	Gly	Leu	Glu	Cys	Ala	Cys	Pro	Ala	Leu	Leu	Glu	Tyr	Ala
			260					265					270		
Arg	Thr	Cys	Ala	Gln	Glu	Gly	Met	Val	Leu	Tyr	Gly	Trp	Thr	Asp	His
		275					280					285			
Ser	Ala	Cys	Ser	Pro	Val	Cys	Pro	Ala	Gly	Met	Glu	Tyr	Arg	Gln	Cys
	290					295					300				
Val	Ser	Pro	Cys	Ala	Arg	Thr	Cys	Gln	Ser	Leu	His	Ile	Asn	Glu	Met
305					310					315					320
Cys	Gln	Glu	Arg	Cys	Val	Asp	Gly	Cys	Ser	Cys	Pro	Glu	Gly	Gln	Leu
				325				330						335	
Leu	Asp	Glu	Gly	Leu	Cys	Val	Glu	Ser	Thr	Glu	Cys	Pro	Cys	Val	His
			340					345					350		
Ser	Gly	Lys	Arg	Tyr	Pro	Pro	Gly	Thr	Ser	Leu	Ser	Arg	Asp	Cys	Asn
		355					360					365			
Thr	Cys	Ile	Cys	Arg	Asn	Ser	Gln	Trp	Ile	Cys	Ser	Asn	Glu	Glu	Cys
						375						380			

Pro	Gly	Glu	Cys	Leu	Val	Thr	Gly	Gln	Ser	His	Phe	Lys	Ser	Phe	Asp	385	390	395	400
Asn	Arg	Tyr	Phe	Thr	Phe	Ser	Gly	Ile	Cys	Gln	Tyr	Leu	Leu	Ala	Arg	405	410	415	415
Asp	Cys	Gln	Asp	His	Ser	Phe	Ser	Ile	Val	Ile	Glu	Thr	Val	Gln	Cys	420	425	430	430
Ala	Asp	Asp	Arg	Asp	Ala	Val	Cys	Thr	Arg	Ser	Val	Thr	Val	Arg	Leu	435	440	445	445
Pro	Gly	Leu	His	Asn	Ser	Leu	Val	Lys	Leu	Lys	His	Gly	Ala	Gly	Val	450	455	460	460
Ala	Met	Asp	Gly	Gln	Asp	Ile	Gln	Leu	Pro	Leu	Leu	Lys	Gly	Asp	Leu	465	470	475	480
Arg	Ile	Gln	His	Thr	Val	Thr	Ala	Ser	Val	Arg	Leu	Ser	Tyr	Gly	Glu	485	490	495	495
Asp	Leu	Gln	Met	Asp	Trp	Asp	Gly	Arg	Gly	Arg	Leu	Leu	Val	Lys	Leu	500	505	510	510
Ser	Pro	Val	Tyr	Ala	Gly	Lys	Thr	Cys	Gly	Leu	Cys	Gly	Asn	Tyr	Asn	515	520	525	525
Gly	Asn	Gln	Gly	Asp	Asp	Phe	Leu	Thr	Pro	Ser	Gly	Leu	Ala	Glu	Pro	530	535	540	540
Arg	Val	Glu	Asp	Phe	Gly	Asn	Ala	Trp	Lys	Leu	His	Gly	Asp	Cys	Gln	545	550	555	560
Asp	Leu	Gln	Lys	Gln	His	Ser	Asp	Pro	Cys	Ala	Leu	Asn	Pro	Arg	Met	565	570	575	575
Thr	Arg	Phe	Ser	Glu	Glu	Ala	Cys	Ala	Val	Leu	Thr	Ser	Pro	Thr	Phe	580	585	590	590
Glu	Ala	Cys	His	Arg	Ala	Val	Ser	Pro	Leu	Pro	Tyr	Leu	Arg	Asn	Cys	595	600	605	605
Arg	Tyr	Asp	Val	Cys	Ser	Cys	Ser	Asp	Gly	Arg	Glu	Cys	Leu	Cys	Gly	610	615	620	620
Ala	Leu	Ala	Ser	Tyr	Ala	Ala	Cys	Ala	Gly	Arg	Gly	Val	Arg	Val		625	630	635	640
Ala	Trp	Arg	Glu	Pro	Gly	Arg	Cys	Glu	Leu	Asn	Cys	Pro	Lys	Gly	Gln	645	650	655	655
Val	Tyr	Leu	Gln	Cys	Gly	Thr	Pro	Cys	Asn	Leu	Thr	Cys	Arg	Ser	Leu	660	665	670	670
Ser	Tyr	Pro	Asp	Glu	Glu	Cys	Asn	Glu	Ala	Cys	Leu	Glu	Gly	Cys	Phe	675	680	685	685
Cys	Pro	Pro	Gly	Leu	Tyr	Met	Asp	Glu	Arg	Gly	Asp	Cys	Val	Pro	Lys	690	695	700	700
Ala	Gln	Cys	Pro	Cys	Tyr	Tyr	Asp	Gly	Glu	Ile	Phe	Gln	Pro	Glu	Asp	705	710	715	720
Ile	Phe	Ser	Asp	His	His	Thr	Met	Cys	Tyr	Cys	Glu	Asp	Gly	Phe	Met	725	730	735	735
His	Cys	Thr	Met	Ser	Gly	Val	Pro	Gly	Ser	Leu	Leu	Pro	Asp	Ala	Val	740	745	750	750
Leu	Ser	Ser	Pro	Leu	Ser	His	Arg	Ser	Lys	Arg	Ser	Leu	Ser	Cys	Arg	755	760	765	765
Pro	Pro	Met	Val	Lys	Leu	Val	Cys	Pro	Ala	Asp	Asn	Leu	Arg	Ala	Glu	770	775	780	780
Gly	Leu	Glu	Cys	Thr	Lys	Thr	Cys	Gln	Asn	Tyr	Asp	Leu	Glu	Cys	Met	785	790	795	800
Ser	Met	Gly	Cys	Val	Ser	Gly	Cys	Leu	Cys	Pro	Pro	Gly	Met	Val	Arg	805	810	815	815
His	Glu	Asn	Arg	Cys	Val	Ala	Leu	Glu	Arg	Cys	Pro	Cys	Phe	His	Gln	820	825	830	830
Gly	Lys	Glu	Tyr	Ala	Pro	Gly	Glu	Thr	Val	Lys	Ile	Gly	Cys	Asn	Thr	835	840	845	845
Cys	Val	Cys	Arg	Asp	Arg	Lys	Trp	Asn	Cys	Thr	Asp	His	Val	Cys	Asp	850	855	860	860

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Ala	Thr	Cys	Ser	Thr	Ile	Gly	Met	Ala	His	Tyr	Leu	Thr	Phe	Asp	Gly	
865					870					875					880	
Leu	Lys	Tyr	Leu	Phe	Pro	Gly	Glu	Cys	Gln	Tyr	Val	Leu	Val	Gln	Asp	
				885					890						895	
Tyr	Cys	Gly	Ser	Asn	Pro	Gly	Thr	Phe	Arg	Ile	Leu	Val	Gly	Asn	Lys	
			900					905					910			
Gly	Cys	Ser	His	Pro	Ser	Val	Lys	Cys	Lys	Lys	Arg	Val	Thr	Ile	Leu	
		915					920					925				
Val	Glu	Gly	Gly	Glu	Ile	Glu	Leu	Phe	Asp	Gly	Glu	Val	Asn	Val	Lys	
	930					935					940					
Arg	Pro	Met	Lys	Asp	Glu	Thr	His	Phe	Glu	Val	Glu	Ser	Gly	Arg		
945				950					955					960		
Tyr	Ile	Ile	Leu	Leu	Gly	Lys	Ala	Leu	Ser	Val	Val	Trp	Asp	Arg		
			965					970					975			
His	Leu	Ser	Ile	Ser	Val	Val	Leu	Lys	Gln	Thr	Tyr	Gln	Glu	Lys	Val	
		980						985				990				
Cys	Gly	Leu	Cys	Gly	Asn	Phe	Asp	Gly	Ile	Gln	Asn	Asn	Asp	Leu	Thr	
	995						1000					1005				
Ser	Ser	Asn	Leu	Gln	Val	Glu	Glu	Asp	Pro	Val	Asp	Phe	Gly	Asn	Ser	
	1010					1015					1020					
Trp	Lys	Val	Ser	Ser	Gln	Cys	Ala	Asp	Thr	Arg	Lys	Val	Pro	Leu	Asp	
1025				1030					1035					1040		
Ser	Ser	Pro	Ala	Thr	Cys	His	Asn	Asn	Ile	Met	Lys	Gln	Thr	Met	Val	
			1045					1050						1055		
Asp	Ser	Ser	Cys	Arg	Ile	Leu	Thr	Ser	Asp	Val	Phe	Gln	Asp	Cys	Asn	
		1060					1065					1070				
Lys	Leu	Val	Asp	Pro	Glu	Pro	Tyr	Leu	Asp	Val	Cys	Ile	Tyr	Asp	Thr	
	1075					1080					1085					
Cys	Ser	Cys	Glu	Ser	Ile	Gly	Asp	Cys	Ala	Cys	Phe	Cys	Asp	Thr	Ile	
	1090				1095					1100						
Ala	Ala	Tyr	Ala	His	Val	Cys	Ala	Gln	His	Gly	Lys	Val	Val	Thr	Trp	
1105				1110					1115					1120		
Arg	Thr	Ala	Thr	Leu	Cys	Pro	Gln	Ser	Cys	Glu	Glu	Arg	Asn	Leu	Arg	
			1125					1130						1135		
Glu	Asn	Gly	Tyr	Glu	Cys	Glu	Trp	Arg	Tyr	Asn	Ser	Cys	Ala	Pro	Ala	
	1140					1145						1150				
Cys	Gln	Val	Thr	Cys	Gln	His	Pro	Glu	Pro	Leu	Ala	Cys	Pro	Val	Gln	
	1155					1160						1165				
Cys	Val	Glu	Gly	Cys	His	Ala	His	Cys	Pro	Pro	Gly	Lys	Ile	Leu	Asp	
	1170				1175					1180						
Glu	Leu	Leu	Gln	Thr	Cys	Val	Asp	Pro	Glu	Asp	Cys	Pro	Val	Cys	Glu	
1185			1190						1195					1200		
Val	Ala	Gly	Arg	Arg	Phe	Ala	Ser	Gly	Lys	Lys	Val	Thr	Leu	Asn	Pro	
			1205					1210						1215		
Ser	Asp	Pro	Glu	His	Cys	Gln	Ile	Cys	His	Cys	Asp	Val	Val	Asn	Leu	
	1220							1225				1230				
Thr	Cys	Glu	Ala	Cys	Gln	Glu	Pro	Gly	Gly	Leu	Val	Val	Pro	Pro	Thr	
	1235					1240						1245				
Asp	Ala	Pro	Val	Ser	Pro	Thr	Leu	Tyr	Val	Glu	Asp	Ile	Ser	Glu		
	1250				1255					1260						
Pro	Pro	Leu	His	Asp	Phe	Tyr	Cys	Ser	Arg	Leu	Leu	Asp	Leu	Val	Phe	
1265				1270					1275					1280		
Leu	Leu	Asp	Gly	Ser	Ser	Arg	Leu	Ser	Glu	Ala	Glu	Phe	Glu	Val	Leu	
			1285					1290					1295			
Lys	Ala	Phe	Val	Val	Asp	Met	Met	Glu	Arg	Leu	Arg	Ile	Ser	Gln	Lys	
	1300							1305				1310				
Trp	Val	Arg	Val	Ala	Val	Val	Glu	Tyr	His	Asp	Gly	Ser	His	Ala	Tyr	
	1315					1320					1325					
Ile	Gly	Leu	Lys	Asp	Arg	Lys	Arg	Pro	Ser	Glu	Leu	Arg	Arg	Ile	Ala	
	1330					1335					1340					

Ser Gln Val Lys Tyr Ala Gly Ser Gln Val Ala Ser Thr Ser Glu Val
 1345 1350 1355 1360
 Leu Lys Tyr Thr Leu Phe Gln Ile Phe Ser Lys Ile Asp Arg Pro Glu
 1365 1370 1375
 Ala Ser Arg Ile Ala Leu Leu Leu Met Ala Ser Gln Glu Pro Gln Arg
 1380 1385 1390
 Met Ser Arg Asn Phe Val Arg Tyr Val Gln Gly Leu Lys Lys Lys Lys
 1395 1400 1405
 Val Ile Val Ile Pro Val Gly Ile Gly Pro His Ala Asn Leu Lys Gln
 1410 1415 1420
 Ile Arg Leu Ile Glu Lys Gln Ala Pro Glu Asn Lys Ala Phe Val Leu
 1425 1430 1435 1440
 Ser Ser Val Asp Glu Leu Glu Gln Gln Arg Asp Glu Ile Val Ser Tyr
 1445 1450 1455
 Leu Cys Asp Leu Ala Pro Glu Ala Pro Pro Pro Thr Leu Pro Pro His
 1460 1465 1470
 Met Ala Gln Val Thr Val Gly Pro Gly Leu Leu Gly Val Ser Thr Leu
 1475 1480 1485
 Gly Pro Lys Arg Asn Ser Met Val Leu Asp Val Ala Phe Val Leu Glu
 1490 1495 1500
 Gly Ser Asp Lys Ile Gly Glu Ala Asp Phe Asn Arg Ser Lys Glu Phe
 1505 1510 1515 1520
 Met Glu Glu Val Ile Gln Arg Met Asp Val Gly Gln Asp Ser Ile His
 1525 1530 1535
 Val Thr Val Leu Gln Tyr Ser Tyr Met Val Thr Val Glu Tyr Pro Phe
 1540 1545 1550
 Ser Glu Ala Gln Ser Lys Gly Asp Ile Leu Gln Arg Val Arg Glu Ile
 1555 1560 1565
 Arg Tyr Gln Gly Gly Asn Arg Thr Asn Thr Gly Leu Ala Leu Arg Tyr
 1570 1575 1580
 Leu Ser Asp His Ser Phe Leu Val Ser Gln Gly Asp Arg Glu Gln Ala
 1585 1590 1595 1600
 Pro Asn Leu Val Tyr Met Val Thr Gly Asn Pro Ala Ser Asp Glu Ile
 1605 1610 1615
 Lys Arg Leu Pro Gly Asp Ile Gln Val Val Pro Ile Gly Val Gly Pro
 1620 1625 1630
 Asn Ala Asn Val Gln Glu Leu Glu Arg Ile Gly Trp Pro Asn Ala Pro
 1635 1640 1645
 Ile Leu Ile Gln Asp Phe Glu Thr Leu Pro Arg Glu Ala Pro Asp Leu
 1650 1655 1660
 Val Leu Gln Arg Cys Cys Ser Gly Glu Gly Leu Gln Ile Pro Thr Leu
 1665 1670 1675 1680
 Ser Pro Ala Pro Asp Cys Ser Gln Pro Leu Asp Val Ile Leu Leu Leu
 1685 1690 1695
 Asp Gly Ser Ser Ser Phe Pro Ala Ser Tyr Phe Asp Glu Met Lys Ser
 1700 1705 1710
 Phe Ala Lys Ala Phe Ile Ser Lys Ala Asn Ile Gly Pro Arg Leu Thr
 1715 1720 1725
 Gln Val Ser Val Leu Gln Tyr Gly Ser Ile Thr Thr Ile Asp Val Pro
 1730 1735 1740
 Trp Asn Val Val Pro Glu Lys Ala His Leu Leu Ser Leu Val Asp Val
 1745 1750 1755 1760
 Met Gln Arg Glu Gly Gly Pro Ser Gln Ile Gly Asp Ala Leu Gly Phe
 1765 1770 1775
 Ala Val Arg Tyr Leu Thr Ser Glu Met His Gly Ala Arg Pro Gly Ala
 1780 1785 1790
 Ser Lys Ala Val Val Ile Leu Val Thr Asp Val Ser Val Asp Ser Val
 1795 1800 1805
 Asp Ala Ala Asp Ala Ala Arg Ser Asn Arg Val Thr Val Phe Pro
 1810 1815 1820

10021660.120601

Ile	Gly	Ile	Gly	Asp	Arg	Tyr	Asp	Ala	Ala	Gln	Leu	Arg	Ile	Leu	Ala	1825	1830	1835	1840
Gly	Pro	Ala	Gly	Asp	Ser	Asn	Val	Val	Lys	Leu	Gln	Arg	Ile	Glu	Asp	1845	1850	1855	
Leu	Pro	Thr	Met	Val	Thr	Leu	Gly	Asn	Ser	Phe	Leu	His	Lys	Leu	Cys	1860	1865	1870	
Ser	Gly	Phe	Val	Arg	Ile	Cys	Met	Asp	Glu	Asp	Gly	Asn	Glu	Lys	Arg	1875	1880	1885	
Pro	Gly	Asp	Val	Trp	Thr	Leu	Pro	Asp	Gln	Cys	His	Thr	Val	Thr	Cys	1890	1895	1900	
Gln	Pro	Asp	Gly	Gln	Thr	Leu	Leu	Lys	Ser	His	Arg	Val	Asn	Cys	Asp	1905	1910	1915	1920
Arg	Gly	Leu	Arg	Pro	Ser	Cys	Pro	Asn	Ser	Gln	Ser	Pro	Val	Lys	Val	1925	1930	1935	
Glu	Glu	Thr	Cys	Gly	Cys	Arg	Trp	Thr	Cys	Pro	Cys	Val	Cys	Thr	Gly	1940	1945	1950	
Ser	Ser	Thr	Arg	His	Ile	Val	Thr	Phe	Asp	Gly	Gln	Asn	Phe	Lys	Leu	1955	1960	1965	
Thr	Gly	Ser	Cys	Ser	Tyr	Val	Leu	Phe	Gln	Asn	Lys	Glu	Gln	Asp	Leu	1970	1975	1980	
Glu	Val	Ile	Leu	His	Asn	Gly	Ala	Cys	Ser	Pro	Gly	Ala	Arg	Gln	Gly	1985	1990	1995	2000
Cys	Met	Lys	Ser	Ile	Glu	Val	Lys	His	Ser	Ala	Leu	Ser	Val	Glu	Leu	2005	2010	2015	
His	Ser	Asp	Met	Glu	Val	Thr	Val	Asn	Gly	Arg	Leu	Val	Ser	Val	Pro	2020	2025	2030	
Tyr	Val	Gly	Gly	Asn	Met	Glu	Val	Asn	Val	Tyr	Gly	Ala	Ile	Met	His	2035	2040	2045	
Glu	Val	Arg	Phe	Asn	His	Leu	Gly	His	Ile	Phe	Thr	Phe	Thr	Pro	Gln	2050	2055	2060	
Asn	Asn	Glu	Phe	Gln	Leu	Gln	Leu	Ser	Pro	Lys	Thr	Phe	Ala	Ser	Lys	2065	2070	2075	2080
Thr	Tyr	Gly	Leu	Cys	Gly	Ile	Cys	Asp	Glu	Asn	Gly	Ala	Asn	Asp	Phe	2085	2090	2095	
Met	Leu	Arg	Asp	Gly	Thr	Val	Thr	Thr	Asp	Trp	Lys	Thr	Leu	Val	Gln	2100	2105	2110	
Glu	Trp	Thr	Val	Gln	Arg	Pro	Gly	Gln	Thr	Cys	Gln	Pro	Ile	Leu	Glu	2115	2120	2125	
Glu	Gln	Cys	Leu	Val	Pro	Asp	Ser	Ser	His	Cys	Gln	Val	Leu	Leu	Leu	2130	2135	2140	
Pro	Leu	Phe	Ala	Glu	Cys	His	Lys	Val	Leu	Ala	Pro	Ala	Thr	Phe	Tyr	2145	2150	2155	2160
Ala	Ile	Cys	Gln	Gln	Asp	Ser	Cys	His	Gln	Glu	Gln	Val	Cys	Glu	Val	2165	2170	2175	
Ile	Ala	Ser	Tyr	Ala	His	Leu	Cys	Arg	Thr	Asn	Gly	Val	Cys	Val	Asp	2180	2185	2190	
Trp	Arg	Thr	Pro	Asp	Phe	Cys	Ala	Met	Ser	Cys	Pro	Pro	Ser	Leu	Val	2195	2200	2205	
Tyr	Asn	His	Cys	Glu	His	Gly	Cys	Pro	Arg	His	Cys	Asp	Gly	Asn	Val	2210	2215	2220	
Ser	Ser	Cys	Gly	Asp	His	Pro	Ser	Glu	Gly	Cys	Phe	Cys	Pro	Pro	Asp	2225	2230	2235	2240
Lys	Val	Met	Leu	Glu	Gly	Ser	Cys	Val	Pro	Glu	Glu	Ala	Cys	Thr	Gln	2245	2250	2255	
Cys	Ile	Gly	Glu	Asp	Gly	Val	Gln	His	Gln	Phe	Leu	Glu	Ala	Trp	Val	2260	2265	2270	
Pro	Asp	His	Gln	Pro	Cys	Gln	Ile	Cys	Thr	Cys	Leu	Ser	Gly	Arg	Lys	2275	2280	2285	
Val	Asn	Cys	Thr	Thr	Gln	Pro	Cys	Pro	Thr	Ala	Lys	Ala	Pro	Thr	Cys	2290	2295	2300	

Gly Leu Cys Glu Val Ala Arg Leu Arg Gln Asn Ala Asp Gln Cys Cys
 2305 2310 2315 2320
 Pro Glu Tyr Glu Cys Val Cys Asp Pro Val Ser Cys Asp Leu Pro Pro
 2325 2330 2335
 Val Pro His Cys Glu Arg Gly Leu Gln Pro Thr Leu Thr Asn Pro Gly
 2340 2345 2350
 Glu Cys Arg Pro Asn Phe Thr Cys Ala Cys Arg Lys Glu Glu Cys Lys
 2355 2360 2365
 Arg Val Ser Pro Pro Ser Cys Pro Pro His Arg Leu Pro Thr Leu Arg
 2370 2375 2380
 Lys Thr Gln Cys Cys Asp Glu Tyr Glu Cys Ala Cys Asn Cys Val Asn
 2385 2390 2395 2400
 Ser Thr Val Ser Cys Pro Leu Gly Tyr Leu Ala Ser Thr Ala Thr Asn
 2405 2410 2415
 Asp Cys Gly Cys Thr Thr Thr Thr Cys Leu Pro Asp Lys Val Cys Val
 2420 2425 2430
 His Arg Ser Thr Ile Tyr Pro Val Gly Gln Phe Trp Glu Glu Gly Cys
 2435 2440 2445
 Asp Val Cys Thr Cys Thr Asp Met Glu Asp Ala Val Met Gly Leu Arg
 2450 2455 2460
 Val Ala Gln Cys Ser Gln Lys Pro Cys Glu Asp Ser Cys Arg Ser Gly
 2465 2470 2475 2480
 Phe Thr Tyr Val Leu His Glu Gly Glu Cys Cys Gly Arg Cys Leu Pro
 2485 2490 2495
 Ser Ala Cys Glu Val Val Thr Gly Ser Pro Arg Gly Asp Ser Gln Ser
 2500 2505 2510
 Ser Trp Lys Ser Val Gly Ser Gln Trp Ala Ser Pro Glu Asn Pro Cys
 2515 2520 2525
 Leu Ile Asn Glu Cys Val Arg Val Lys Glu Glu Val Phe Ile Gln Gln
 2530 2535 2540
 Arg Asn Val Ser Cys Pro Gln Leu Glu Val Pro Val Cys Pro Ser Gly
 2545 2550 2555 2560
 Phe Gln Leu Ser Cys Lys Thr Ser Ala Cys Cys Pro Ser Cys Arg Cys
 2565 2570 2575
 Glu Arg Met Glu Ala Cys Met Leu Asn Gly Thr Val Ile Gly Pro Gly
 2580 2585 2590
 Lys Thr Val Met Ile Asp Val Cys Thr Thr Cys Arg Cys Met Val Gln
 2595 2600 2605
 Val Gly Val Ile Ser Gly Phe Lys Leu Glu Cys Arg Lys Thr Thr Cys
 2610 2615 2620
 Asn Pro Cys Pro Leu Gly Tyr Lys Glu Glu Asn Asn Thr Gly Glu Cys
 2625 2630 2635 2640
 Cys Gly Arg Cys Leu Pro Thr Ala Cys Thr Ile Gln Leu Arg Gly Gly
 2645 2650 2655
 Gln Ile Met Thr Leu Lys Arg Asp Glu Thr Leu Gln Asp Gly Cys Asp
 2660 2665 2670
 Thr His Phe Cys Lys Val Asn Glu Arg Gly Glu Tyr Phe Trp Glu Lys
 2675 2680 2685
 Arg Val Thr Gly Cys Pro Pro Phe Asp Glu His Lys Cys Leu Ala Glu
 2690 2695 2700
 Gly Gly Lys Ile Met Lys Ile Pro Gly Thr Cys Cys Asp Thr Cys Glu
 2705 2710 2715 2720
 Glu Pro Glu Cys Asn Asp Ile Thr Ala Arg Leu Gln Tyr Val Lys Val
 2725 2730 2735
 Gly Ser Cys Lys Ser Glu Val Glu Val Asp Ile His Tyr Cys Gln Gly
 2740 2745 2750
 Lys Cys Ala Ser Lys Ala Met Tyr Ser Ile Asp Ile Asn Asp Val Gln
 2755 2760 2765
 Asp Gln Cys Ser Cys Cys Ser Pro Thr Arg Thr Glu Pro Met Gln Val
 2770 2775 2780

Ala Leu His Cys Thr Asn Gly Ser Val Val Tyr His Glu Val Leu Asn
 2785 2790 2795 2800
 Ala Met Glu Cys Lys Cys Ser Pro Arg Lys Cys Ser Lys
 2805 2810

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<400> 80
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 Thr Glu Gly Arg Arg Cys Gln Val His Leu Leu Asp Asp Arg Lys Leu
 20 25 30
 Glu Leu Leu Val Gln Pro Lys Leu Leu Ala Lys Glu Leu Leu Asp Leu
 35 40 45
 Val Ala Ser His Phe Asn Leu Lys Glu Lys Glu Tyr Phe Gly Ile Ala
 50 55 60
 Phe Thr Asp Glu Thr Gly His Leu Asn Trp Leu Gln Leu Asp Arg Arg
 65 70 75 80
 Val Leu Glu His Asp Phe Pro Lys Lys Ser Gly Pro Val Val Leu Tyr
 85 90 95
 Phe Cys Val Arg Phe Tyr Ile Glu Ser Ile Ser Tyr Leu Lys Asp Asn
 100 105 110
 Ala Thr Ile Glu Leu Phe Phe Leu Asn Ala Lys Ser Cys Ile Tyr Lys
 115 120 125
 Glu Leu Ile Asp Val Asp Ser Glu Val Val Phe Glu Leu Ala Ser Tyr
 130 135 140
 Ile Leu Gln Glu Ala Lys Gly Asp Phe Ser Ser Asn Glu Val Val Arg
 145 150 155 160
 Ser Asp Leu Lys Lys Leu Pro Ala Leu Pro Thr Gln Ala Leu Lys Glu
 165 170 175
 His Pro Ser Leu Ala Tyr Cys Glu Asp Arg Val Ile Glu His Tyr Lys
 180 185 190
 Lys Leu Asn Gly Gln Thr Arg Gly Gln Ala Ile Val Asn Tyr Met Ser
 195 200 205
 Ile Val Glu Ser Leu Pro Thr Tyr Gly Val His Tyr Tyr Ala Val Lys
 210 215 220
 Asp Lys Gln Gly Ile Pro Trp Trp Leu Gly Leu Ser Tyr Lys Gly Ile
 225 230 235 240
 Phe Gln Tyr Asp Tyr His Asp Lys Val Lys Pro Arg Lys Ile Phe Gln
 245 250 255
 Trp Arg Gln Leu Glu Asn Leu Tyr Phe Arg Glu Lys Lys Phe Ser Val
 260 265 270
 Glu Val His Asp Pro Arg Arg Ala Ser Val Thr Arg Arg Thr Phe Gly
 275 280 285
 His Ser Gly Ile Ala Val His Thr Trp Tyr Ala Cys Pro Ala Leu Ile
 290 295 300
 Lys Ser Ile Trp Ala Met Ala Ile Ser Gln His Gln Phe Tyr Leu Asp
 305 310 315 320
 Arg Lys Gln Ser Lys Ser Lys Ile His Ala Ala Arg Ser Leu Ser Glu
 325 330 335
 Ile Ala Ile Asp Leu Thr Glu Thr Gly Thr Leu Lys Thr Ser Lys Leu
 340 345 350
 Ala Asn Met Gly Ser Lys Gly Lys Ile Ile Ser Gly Ser Ser Gly Ser
 355 360 365
 Leu Leu Ser Ser Gly Ser Gln Glu Ser Asp Ser Ser Gln Ser Ala Lys
 370 375 380
 Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu Ala Leu Glu Glu
 385 390 395 400

Thr	Leu	Arg	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Lys	Leu	Cys	Leu	Arg	Glu	
				405					410						415	
Ala	Glu	Leu	Thr	Gly	Lys	Leu	Pro	Val	Glu	Tyr	Pro	Leu	Asp	Pro	Gly	
			420					425					430			
Glu	Glu	Pro	Pro	Ile	Val	Arg	Arg	Arg	Ile	Gly	Thr	Ala	Phe	Lys	Leu	
		435					440					445				
Asp	Glu	Gln	Lys	Ile	Leu	Pro	Lys	Gly	Glu	Glu	Ala	Glu	Leu	Glu	Arg	
	450					455					460					
Leu	Glu	Arg	Glu	Phe	Ala	Ile	Gln	Ser	Gln	Ile	Thr	Glu	Ala	Ala	Arg	
465					470					475					480	
Arg	Leu	Ala	Ser	Asp	Pro	Asn	Val	Ser	Lys	Lys	Leu	Lys	Lys	Gln	Arg	
			485						490					495		
Lys	Thr	Ser	Tyr	Leu	Asn	Ala	Leu	Lys	Lys	Leu	Gln	Glu	Ile	Glu	Asn	
		500						505					510			
Ala	Ile	Asn	Glu	Asn	Arg	Ile	Lys	Ser	Gly	Lys	Lys	Pro	Thr	Gln	Arg	
	515						520					525				
Ala	Ser	Leu	Ile	Ile	Asp	Asp	Gly	Asn	Ile	Ala	Ser	Glu	Asp	Ser	Ser	
	530					535				540						
Leu	Ser	Asp	Ala	Leu	Val	Leu	Glu	Asp	Glu	Asp	Ser	Gln	Val	Thr	Ser	
545					550					555					560	
Thr	Ile	Ser	Pro	Leu	His	Ser	Pro	His	Lys	Gly	Leu	Pro	Pro	Arg	Pro	
			565						570					575		
Pro	Ser	His	Asn	Arg	Pro	Pro	Pro	Pro	Gln	Ser	Leu	Glu	Gly	Leu	Arg	
		580						585					590			
Gln	Met	His	Tyr	His	Arg	Asn	Asp	Tyr	Asp	Lys	Ser	Pro	Ile	Lys	Pro	
		595					600					605				
Lys	Met	Trp	Ser	Glu	Ser	Ser	Leu	Asp	Glu	Pro	Tyr	Glu	Lys	Val	Lys	
	610					615					620					
Lys	Arg	Ser	Ser	His	Ser	His	Ser	Ser	Ser	His	Lys	Arg	Phe	Pro	Ser	
625					630					635					640	
Thr	Gly	Ser	Cys	Ala	Glu	Ala	Gly	Gly	Gly	Ser	Asn	Ser	Leu	Gln	Asn	
			645					650						655		
Ser	Pro	Ile	Arg	Gly	Leu	Pro	His	Trp	Asn	Ser	Gln	Ser	Ser	Met	Pro	
		660						665					670			
Ser	Thr	Pro	Asp	Leu	Arg	Val	Arg	Ser	Pro	His	Tyr	Val	His	Ser	Thr	
		675					680					685				
Arg	Ser	Val	Asp	Ile	Ser	Pro	Thr	Arg	Leu	His	Ser	Leu	Ala	Leu	His	
	690					695					700					
Phe	Arg	His	Arg	Ser	Ser	Ser	Leu	Glu	Ser	Gln	Gly	Lys	Leu	Leu	Gly	
705					710					715					720	
Ser	Glu	Asn	Asp	Thr	Gly	Ser	Pro	Asp	Phe	Tyr	Thr	Pro	Arg	Thr	Arg	
			725					730						735		
Ser	Ser	Asn	Gly	Ser	Asp	Pro	Met	Asp	Asp	Cys	Ser	Ser	Cys	Thr	Ser	
		740						745					750			
His	Ser	Ser	Ser	Glu	His	Tyr	Tyr	Pro	Ala	Gln	Met	Asn	Ala	Asn	Tyr	
	755						760					765				
Ser	Thr	Leu	Ala	Glu	Asp	Ser	Pro	Ser	Lys	Ala	Arg	Gln	Arg	Gln	Arg	
	770					775					780					
Gln	Arg	Gln	Arg	Ala	Ala	Gly	Ala	Leu	Gly	Ser	Ala	Ser	Ser	Gly	Ser	
785					790					795					800	
Met	Pro	Asn	Leu	Ala	Ala	Arg	Gly	Gly	Ala	Gly	Gly	Ala	Gly	Gly	Ala	
			805					810						815		
Gly	Gly	Gly	Val	Tyr	Leu	His	Ser	Gln	Ser	Gln	Pro	Ser	Ser	Gln	Tyr	
		820						825					830			
Arg	Ile	Lys	Glu	Tyr	Pro	Leu	Tyr	Ile	Glu	Gly	Gly	Ala	Thr	Pro	Val	
	835						840					845				
Val	Val	Arg	Ser	Leu	Glu	Ser	Asp	Gln	Glu	Cys	His	Tyr	Ser	Val	Lys	
	850					855					860					
Ala	Gln	Phe	Lys	Thr	Ser	Asn	Ser	Tyr	Thr	Ala	Gly	Gly	Leu	Phe	Lys	
865					870					875					880	

Glu Ser Trp Arg Gly Gly Gly Gly Asp Glu Gly Asp Thr Gly Arg Leu
 885 890 895
 Thr Pro Ser Arg Ser Gln Ile Leu Arg Thr Pro Ser Leu Gly Arg Glu
 900 905 910
 Gly Ala His Asp Lys Gly Ala Gly Arg Ala Ala Val Ser Asp Glu Leu
 915 920 925
 Arg Gln Trp Tyr Gln Arg Ser Thr Ala Ser His Lys Glu His Ser Arg
 930 935 940
 Leu Ser His Thr Ser Ser Thr Ser Ser Asp Ser Gly Ser Gln Tyr Ser
 945 950 955 960
 Thr Ser Ser Gln Ser Thr Phe Val Ala His Ser Arg Val Thr Arg Met
 965 970 975
 Pro Gln Met Cys Lys Ala Thr Ser Ala Ala Leu Pro Gln Ser Gln Arg
 980 985 990
 Ser Ser Thr Pro Ser Ser Glu Ile Gly Ala Thr Pro Pro Ser Ser Pro
 995 1000 1005
 His His Ile Leu Thr Trp Gln Thr Gly Glu Ala Thr Glu Asn Ser Pro
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 Ile Leu Asp Gly Ser Glu Ser Pro Pro His Gln Ser Thr Asp Glu
 1025 1030 1035

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 35 40 45
 Ser Thr Asp Thr Val Lys Asn Thr Leu Asp Pro Lys Trp Asn Gln His
 50 55 60
 Tyr Asp Leu Tyr Ile Gly Lys Ser Asp Ser Val Thr Ile Ser Val Trp
 65 70 75 80
 Asn His Lys Lys Ile His Lys Lys Gln Gly Ala Gly Phe Leu Gly Cys
 85 90 95
 Val Arg Leu Leu Ser Asn Ala Ile Asn Arg Leu Lys Asp Thr Gly Tyr
 100 105 110
 Gln Arg Leu Asp Leu Cys Lys Leu Gly Pro Asn Asp Asn Asp Thr Val
 115 120 125
 Arg Gly Gln Ile Val Val Ser Leu Gln Ser Arg Asp Arg Ile Gly Thr
 130 135 140
 Gly Gly Gln Val Val Asp Cys Ser Arg Leu Phe Asp Asn Asp Leu Pro
 145 150 155 160
 Asp Gly Trp Glu Glu Arg Arg Thr Ala Ser Gly Arg Ile Gln Tyr Leu
 165 170 175
 Asn His Ile Thr Arg Thr Thr Gln Trp Glu Arg Pro Thr Arg Pro Ala
 180 185 190
 Ser Glu Tyr Ser Ser Pro Gly Arg Pro Leu Ser Cys Phe Val Asp Glu
 195 200 205
 Asn Thr Pro Ile Ser Gly Thr Asn Gly Ala Thr Cys Gly Gln Ser Ser
 210 215 220
 Asp Pro Arg Leu Ala Glu Arg Arg Val Arg Ser Gln Arg His Arg Asn
 225 230 235 240
 Tyr Met Ser Arg Thr His Leu His Thr Pro Pro Asp Leu Pro Glu Gly
 245 250 255
 Tyr Glu Gln Arg Thr Thr Gln Gln Gly Gln Val Tyr Phe Leu His Thr
 260 265 270

10021650-120601

Gln	Thr	Gly	Val	Ser	Thr	Trp	His	Asp	Pro	Arg	Val	Pro	Arg	Asp	Leu
		275					280					285			
Ser	Asn	Ile	Asn	Cys	Glu	Glu	Leu	Gly	Pro	Leu	Pro	Pro	Gly	Trp	Glu
	290					295					300				
Ile	Arg	Asn	Thr	Ala	Thr	Gly	Arg	Val	Tyr	Phe	Val	Asp	His	Asn	Asn
	305				310					315					320
Arg	Thr	Thr	Gln	Phe	Thr	Asp	Pro	Arg	Leu	Ser	Ala	Asn	Leu	His	Leu
			325						330					335	
Val	Leu	Asn	Arg	Gln	Asn	Gln	Leu	Lys	Asp	Gln	Gln	Gln	Gln	Gln	Val
			340					345					350		
Val	Ser	Leu	Cys	Pro	Asp	Asp	Thr	Glu	Cys	Leu	Thr	Val	Pro	Arg	Tyr
		355				360						365			
Lys	Arg	Asp	Leu	Val	Gln	Lys	Leu	Lys	Ile	Leu	Arg	Gln	Glu	Leu	Ser
	370					375					380				
Gln	Gln	Gln	Pro	Gln	Ala	Gly	His	Cys	Arg	Ile	Glu	Val	Ser	Arg	Glu
	385				390					395					400
Glu	Ile	Phe	Glu	Glu	Ser	Tyr	Arg	Gln	Val	Met	Lys	Met	Arg	Pro	Lys
				405					410					415	
Asp	Leu	Trp	Lys	Arg	Leu	Met	Ile	Lys	Phe	Arg	Gly	Glu	Glu	Gly	Leu
			420					425					430		
Asp	Tyr	Gly	Gly	Val	Ala	Arg	Glu	Trp	Leu	Tyr	Leu	Leu	Ser	His	Glu
	435					440						445			
Met	Leu	Asn	Pro	Tyr	Tyr	Gly	Leu	Phe	Gln	Tyr	Ser	Arg	Asp	Asp	Ile
	450					455					460				
Tyr	Thr	Leu	Gln	Ile	Asn	Pro	Asp	Ser	Ala	Val	Asn	Pro	Glu	His	Leu
	465				470					475					480
Ser	Tyr	Phe	His	Phe	Val	Gly	Arg	Ile	Met	Gly	Met	Ala	Val	Phe	His
			485						490					495	
Gly	His	Tyr	Ile	Asp	Gly	Gly	Phe	Thr	Leu	Pro	Phe	Tyr	Lys	Gln	Leu
			500					505					510		
Leu	Gly	Lys	Ser	Ile	Thr	Leu	Asp	Met	Glu	Leu	Val	Asp	Pro	Asp	
		515					520					525			
Leu	His	Asn	Ser	Leu	Val	Trp	Ile	Leu	Glu	Asn	Asp	Ile	Thr	Gly	Val
	530					535					540				
Leu	Asp	His	Thr	Phe	Cys	Val	Glu	His	Asn	Ala	Tyr	Gly	Glu	Ile	Ile
	545				550					555					560
Gln	His	Glu	Leu	Lys	Pro	Asn	Gly	Lys	Ser	Ile	Pro	Val	Asn	Glu	Glu
				565					570					575	
Asn	Lys	Lys	Glu	Tyr	Val	Arg	Leu	Tyr	Val	Asn	Trp	Arg	Phe	Leu	Arg
			580					585					590		
Gly	Ile	Glu	Ala	Gln	Phe	Leu	Ala	Leu	Gln	Lys	Gly	Phe	Asn	Glu	Val
		595					600					605			
Ile	Pro	Gln	His	Leu	Leu	Lys	Thr	Phe	Asp	Glu	Lys	Glu	Leu	Glu	Leu
	610					615					620				
Ile	Ile	Cys	Gly	Leu	Gly	Lys	Ile	Asp	Val	Asn	Asp	Trp	Lys	Val	Asn
	625				630					635					640
Thr	Arg	Leu	Lys	His	Cys	Thr	Pro	Asp	Ser	Asn	Ile	Val	Lys	Trp	Phe
				645					650					655	
Trp	Lys	Ala	Val	Glu	Phe	Phe	Asp	Glu	Glu	Arg	Arg	Ala	Arg	Leu	Leu
			660					665					670		
Gln	Phe	Val	Thr	Gly	Ser	Ser	Arg	Val	Pro	Leu	Gln	Gly	Phe	Lys	Ala
		675					680					685			
Leu	Gln	Gly	Ala	Ala	Gly	Pro	Arg	Leu	Phe	Thr	Ile	His	Gln	Ile	Asp
	690					695					700				
Ala	Cys	Thr	Asn	Asn	Leu	Pro	Lys	Ala	His	Thr	Cys	Phe	Asn	Arg	Ile
	705				710					715					720
Asp	Ile	Pro	Pro	Tyr	Glu	Ser	Tyr	Glu	Lys	Leu	Tyr	Glu	Lys	Leu	Leu
				725					730					735	
Thr	Ala	Ile	Glu	Thr	Cys	Gly	Phe	Ala	Val	Glu					
			740				745								

<210> 82
 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 82
 Pro Leu Trp Thr Glu Pro Pro Leu Ser Cys Cys Leu Pro Ala Thr Tyr
 1 5 10 15
 Pro Ala Asp Arg Gly Pro Ala Glu Pro Cys Ser Cys Ala Gly Val Ile
 20 25 30
 Leu Gly Phe Leu Leu Phe Arg Gly His Asn Ser Gln Pro Thr Met Thr
 35 40 45
 Gln Thr Ser Ser Ser Gln Gly Gly Leu Gly Gly Leu Ser Leu Thr Thr
 50 55 60
 Glu Pro Val Ser Ser Asn Pro Gly Tyr Ile Pro Ser Ser Glu Ala Asn
 65 70 75 80
 Arg Pro Ser His Leu Ser Ser Thr Gly Thr Pro Gly Ala Gly Val Pro
 85 90 95
 Ser Ser Gly Arg Asp Gly Gly Thr Ser Arg Asp Thr Phe Gln Thr Val
 100 105 110
 Pro Pro Asn Ser Thr Thr Met Ser Leu Ser Met Arg Glu Asp Ala Thr
 115 120 125
 Ile Leu Pro Ser Pro Thr Ser Glu Thr Val Leu Thr Val Ala Ala Phe
 130 135 140
 Gly Val Ile Ser Phe Ile Val Ile Leu Val Val Val Val Ile Ile Leu
 145 150 155 160
 Val Gly Val Val Ser Leu Arg Phe Lys Cys Arg Lys Ser Lys Glu Ser
 165 170 175
 Gly Asp Pro Gln Lys Pro Gly Glu Arg Glu Glu Lys Val Gly His Arg
 180 185 190
 Arg Glu Pro Tyr Pro Trp Asn
 195

<210> 83
 <211> 652
 <212> PRT
 <213> Homo sapiens

<400> 83
 Met Ala Thr Ser Met Gly Leu Leu Leu Leu Leu Leu Leu Leu Thr
 1 5 10 15
 Gln Pro Gly Ala Gly Thr Gly Ala Asp Thr Glu Ala Val Val Cys Val
 20 25 30
 Gly Thr Ala Cys Tyr Thr Ala His Ser Gly Lys Leu Ser Ala Ala Glu
 35 40 45
 Ala Gln Asn His Cys Asn Gln Asn Gly Gly Asn Leu Ala Thr Val Lys
 50 55 60
 Ser Lys Glu Glu Ala Gln His Val Gln Arg Val Leu Ala Gln Leu Leu
 65 70 75 80
 Arg Arg Glu Ala Ala Leu Thr Ala Arg Met Ser Lys Phe Trp Ile Gly
 85 90 95
 Leu Gln Arg Glu Lys Gly Lys Cys Leu Asp Pro Ser Leu Pro Leu Lys
 100 105 110
 Gly Phe Ser Trp Val Gly Gly Gly Glu Asp Thr Pro Tyr Ser Asn Trp
 115 120 125
 His Lys Glu Leu Arg Asn Ser Cys Ile Ser Lys Arg Cys Val Ser Leu
 130 135 140
 Leu Leu Asp Leu Ser Gln Pro Leu Leu Pro Asn Arg Leu Pro Lys Trp
 145 150 155 160
 Ser Glu Gly Pro Cys Gly Ser Pro Gly Ser Pro Gly Ser Asn Ile Glu
 165 170 175

Gly	Phe	Val	Cys	Lys	Phe	Ser	Phe	Lys	Gly	Met	Cys	Arg	Pro	Leu	Ala	
			180					185					190			
Leu	Gly	Gly	Pro	Gly	Gln	Val	Thr	Tyr	Thr	Thr	Pro	Phe	Gln	Thr	Thr	
		195					200					205				
Ser	Ser	Ser	Leu	Glu	Ala	Val	Pro	Phe	Ala	Ser	Ala	Ala	Asn	Val	Ala	
		210				215					220					
Cys	Gly	Glu	Gly	Asp	Lys	Asp	Glu	Thr	Gln	Ser	His	Tyr	Phe	Leu	Cys	
225				230						235					240	
Lys	Glu	Lys	Ala	Pro	Asp	Val	Phe	Asp	Trp	Gly	Ser	Ser	Gly	Pro	Leu	
			245					250						255		
Cys	Val	Ser	Pro	Lys	Tyr	Gly	Cys	Asn	Phe	Asn	Asn	Gly	Gly	Cys	His	
		260						265					270			
Gln	Asp	Cys	Phe	Glu	Gly	Gly	Asp	Gly	Ser	Phe	Leu	Cys	Gly	Cys	Arg	
		275					280					285				
Pro	Gly	Phe	Arg	Leu	Leu	Asp	Asp	Leu	Val	Thr	Cys	Ala	Ser	Arg	Asn	
		290				295					300					
Pro	Cys	Ser	Ser	Ser	Pro	Cys	Arg	Gly	Gly	Ala	Thr	Cys	Val	Leu	Gly	
305				310						315					320	
Pro	His	Gly	Lys	Asn	Tyr	Thr	Cys	Arg	Cys	Pro	Gln	Gly	Tyr	Gln	Leu	
			325					330						335		
Asp	Ser	Ser	Gln	Leu	Asp	Cys	Val	Asp	Val	Asp	Glu	Cys	Gln	Asp	Ser	
			340					345					350			
Pro	Cys	Ala	Gln	Glu	Cys	Val	Asn	Thr	Pro	Gly	Gly	Phe	Arg	Cys	Glu	
		355				360						365				
Cys	Trp	Val	Gly	Tyr	Glu	Pro	Gly	Gly	Pro	Gly	Glu	Gly	Ala	Cys	Gln	
		370				375					380					
Asp	Val	Asp	Glu	Cys	Ala	Leu	Gly	Arg	Ser	Pro	Cys	Ala	Gln	Gly	Cys	
385				390						395					400	
Thr	Asn	Thr	Asp	Gly	Ser	Phe	His	Cys	Ser	Cys	Glu	Glu	Gly	Tyr	Val	
			405					410					415			
Leu	Ala	Gly	Glu	Asp	Gly	Thr	Gln	Cys	Gln	Asp	Val	Asp	Glu	Cys	Val	
			420					425					430			
Gly	Pro	Gly	Gly	Pro	Leu	Cys	Asp	Ser	Leu	Cys	Phe	Asn	Thr	Gln	Gly	
		435					440					445				
Ser	Phe	His	Cys	Gly	Cys	Leu	Pro	Gly	Trp	Val	Leu	Ala	Pro	Asn	Gly	
		450				455					460					
Val	Ser	Cys	Thr	Met	Gly	Pro	Val	Ser	Leu	Gly	Pro	Pro	Ser	Gly	Pro	
465				470						475					480	
Pro	Asp	Glu	Glu	Asp	Lys	Gly	Glu	Lys	Glu	Gly	Ser	Thr	Val	Pro	Arg	
			485					490					495			
Ala	Ala	Thr	Ala	Ser	Pro	Thr	Arg	Gly	Pro	Glu	Gly	Thr	Pro	Lys	Ala	
			500					505					510			
Thr	Pro	Thr	Thr	Ser	Arg	Pro	Ser	Leu	Ser	Ser	Asp	Ala	Pro	Ile	Thr	
		515					520					525				
Ser	Ala	Pro	Leu	Lys	Met	Leu	Ala	Pro	Ser	Gly	Ser	Ser	Gly	Val	Trp	
		530				535					540					
Arg	Glu	Pro	Ser	Ile	His	His	Ala	Thr	Ala	Ala	Ser	Gly	Pro	Gln	Glu	
545				550						555					560	
Pro	Ala	Gly	Gly	Asp	Ser	Ser	Val	Ala	Thr	Gln	Asn	Asn	Asp	Gly	Thr	
			565						570					575		
Asp	Gly	Gln	Lys	Leu	Leu	Leu	Phe	Tyr	Ile	Leu	Gly	Thr	Val	Val	Ala	
			580					585					590			
Ile	Leu	Leu	Leu	Leu	Ala	Leu	Ala	Leu	Gly	Leu	Leu	Val	Tyr	Arg	Lys	
		595				600						605				
Arg	Arg	Ala	Lys	Arg	Glu	Glu	Lys	Lys	Glu	Lys	Lys	Pro	Gln	Asn	Ala	
		610				615					620					
Ala	Asp	Ser	Tyr	Ser	Trp	Val	Pro	Glu	Arg	Ala	Glu	Ser	Arg	Ala	Met	
625				630						635					640	
Glu	Asn	Gln	Tyr	Ser	Pro	Thr	Pro	Gly	Thr	Asp	Cys					
			645						650							

<210> 84
 <211> 1338
 <212> PRT
 <213> Homo sapiens

<400> 84

Met	Val	Ser	Tyr	Trp	Asp	Thr	Gly	Val	Leu	Leu	Cys	Ala	Leu	Leu	Ser
1				5				10						15	
Cys	Leu	Leu	Leu	Thr	Gly	Ser	Ser	Ser	Gly	Ser	Lys	Leu	Lys	Asp	Pro
			20					25					30		
Glu	Leu	Ser	Leu	Lys	Gly	Thr	Gln	His	Ile	Met	Gln	Ala	Gly	Gln	Thr
		35					40					45			
Leu	His	Leu	Gln	Cys	Arg	Gly	Glu	Ala	Ala	His	Lys	Trp	Ser	Leu	Pro
	50					55					60				
Glu	Met	Val	Ser	Lys	Glu	Ser	Glu	Arg	Leu	Ser	Ile	Thr	Lys	Ser	Ala
65					70					75					80
Cys	Gly	Arg	Asn	Gly	Lys	Gln	Phe	Cys	Ser	Thr	Leu	Thr	Leu	Asn	Thr
				85					90					95	
Ala	Gln	Ala	Asn	His	Thr	Gly	Phe	Tyr	Ser	Cys	Lys	Tyr	Leu	Ala	Val
			100					105					110		
Pro	Thr	Ser	Lys	Lys	Lys	Glu	Thr	Glu	Ser	Ala	Ile	Tyr	Ile	Phe	Ile
		115					120					125			
Ser	Asp	Thr	Gly	Arg	Pro	Phe	Val	Glu	Met	Tyr	Ser	Glu	Ile	Pro	Glu
	130					135					140				
Ile	Ile	His	Met	Thr	Glu	Gly	Arg	Glu	Leu	Val	Ile	Pro	Cys	Arg	Val
145					150					155					160
Thr	Ser	Pro	Asn	Ile	Thr	Val	Thr	Leu	Lys	Lys	Phe	Pro	Leu	Asp	Thr
			165						170					175	
Leu	Ile	Pro	Asp	Gly	Lys	Arg	Ile	Ile	Trp	Asp	Ser	Arg	Lys	Gly	Phe
		180						185					190		
Ile	Ile	Ser	Asn	Ala	Thr	Tyr	Lys	Glu	Ile	Gly	Leu	Leu	Thr	Cys	Glu
		195					200					205			
Ala	Thr	Val	Asn	Gly	His	Leu	Tyr	Lys	Thr	Asn	Tyr	Leu	Thr	His	Arg
	210					215					220				
Gln	Thr	Asn	Thr	Ile	Ile	Asp	Val	Gln	Ile	Ser	Thr	Pro	Arg	Pro	Val
225					230					235					240
Lys	Leu	Leu	Arg	Gly	His	Thr	Leu	Val	Leu	Asn	Cys	Thr	Ala	Thr	Thr
			245						250					255	
Pro	Leu	Asn	Thr	Arg	Val	Gln	Met	Thr	Trp	Ser	Tyr	Pro	Asp	Glu	Lys
		260						265					270		
Asn	Lys	Arg	Ala	Ser	Val	Arg	Arg	Arg	Ile	Asp	Gln	Ser	Asn	Ser	His
		275					280					285			
Ala	Asn	Ile	Phe	Tyr	Ser	Val	Leu	Thr	Ile	Asp	Lys	Met	Gln	Asn	Lys
	290					295					300				
Asp	Lys	Gly	Leu	Tyr	Thr	Cys	Arg	Val	Arg	Ser	Gly	Pro	Ser	Phe	Lys
305					310					315					320
Ser	Val	Asn	Thr	Ser	Val	His	Ile	Tyr	Asp	Lys	Ala	Phe	Ile	Thr	Val
			325						330					335	
Lys	His	Arg	Lys	Gln	Gln	Val	Leu	Glu	Thr	Val	Ala	Gly	Lys	Arg	Ser
			340					345					350		
Tyr	Arg	Leu	Ser	Met	Lys	Val	Lys	Ala	Phe	Pro	Ser	Pro	Glu	Val	Val
		355					360					365			
Trp	Leu	Lys	Asp	Gly	Leu	Pro	Ala	Thr	Glu	Lys	Ser	Ala	Arg	Tyr	Leu
	370					375					380				
Thr	Arg	Gly	Tyr	Ser	Leu	Ile	Ile	Lys	Asp	Val	Thr	Glu	Glu	Asp	Ala
385					390					395					400
Gly	Asn	Tyr	Thr	Ile	Leu	Leu	Ser	Ile	Lys	Gln	Ser	Asn	Val	Phe	Lys
			405						410					415	
Asn	Leu	Thr	Ala	Thr	Leu	Ile	Val	Asn	Val	Lys	Pro	Gln	Ile	Tyr	Glu
			420					425					430		

Lys	Ala	Val	Ser	Ser	Phe	Pro	Asp	Pro	Ala	Leu	Tyr	Pro	Leu	Gly	Ser	435	440	445
Arg	Gln	Ile	Leu	Thr	Cys	Thr	Ala	Tyr	Gly	Ile	Pro	Gln	Pro	Thr	Ile	450	455	460
Lys	Trp	Phe	Trp	His	Pro	Cys	Asn	His	Asn	His	Ser	Glu	Ala	Arg	Cys	465	470	475
Asp	Phe	Cys	Ser	Asn	Asn	Glu	Glu	Ser	Phe	Ile	Leu	Asp	Ala	Asp	Ser	485	490	495
Asn	Met	Gly	Asn	Arg	Ile	Glu	Ser	Ile	Thr	Gln	Arg	Met	Ala	Ile	Ile	500	505	510
Glu	Gly	Lys	Asn	Lys	Met	Ala	Ser	Thr	Leu	Val	Val	Ala	Asp	Ser	Arg	515	520	525
Ile	Ser	Gly	Ile	Tyr	Ile	Cys	Ile	Ala	Ser	Asn	Lys	Val	Gly	Thr	Val	530	535	540
Gly	Arg	Asn	Ile	Ser	Phe	Tyr	Ile	Thr	Asp	Val	Pro	Asn	Gly	Phe	His	545	550	555
Val	Asn	Leu	Glu	Lys	Met	Pro	Thr	Glu	Gly	Glu	Asp	Leu	Lys	Leu	Ser	565	570	575
Cys	Thr	Val	Asn	Lys	Phe	Leu	Tyr	Arg	Asp	Val	Thr	Trp	Ile	Leu	Leu	580	585	590
Arg	Thr	Val	Asn	Asn	Arg	Thr	Met	His	Tyr	Ser	Ile	Ser	Lys	Gln	Lys	595	600	605
Met	Ala	Ile	Thr	Lys	Glu	His	Ser	Ile	Thr	Leu	Asn	Leu	Thr	Ile	Met	610	615	620
Asn	Val	Ser	Leu	Gln	Asp	Ser	Gly	Thr	Tyr	Ala	Cys	Arg	Ala	Arg	Asn	625	630	635
Val	Tyr	Thr	Gly	Glu	Glu	Ile	Leu	Gln	Lys	Lys	Glu	Ile	Thr	Ile	Arg	645	650	655
Asp	Gln	Glu	Ala	Pro	Tyr	Leu	Leu	Arg	Asn	Leu	Ser	Asp	His	Thr	Val	660	665	670
Ala	Ile	Ser	Ser	Thr	Thr	Leu	Asp	Cys	His	Ala	Asn	Gly	Val	Pro		675	680	685
Glu	Pro	Gln	Ile	Thr	Trp	Phe	Lys	Asn	Asn	His	Lys	Ile	Gln	Gln	Glu	690	695	700
Pro	Gly	Ile	Ile	Leu	Gly	Pro	Gly	Ser	Ser	Thr	Leu	Phe	Ile	Glu	Arg	705	710	715
Val	Thr	Glu	Glu	Asp	Glu	Gly	Val	Tyr	His	Cys	Lys	Ala	Thr	Asn	Gln	725	730	735
Lys	Gly	Ser	Val	Glu	Ser	Ser	Ala	Tyr	Leu	Thr	Val	Gln	Gly	Thr	Ser	740	745	750
Asp	Lys	Ser	Asn	Leu	Glu	Leu	Ile	Thr	Leu	Thr	Cys	Thr	Cys	Val	Ala	755	760	765
Ala	Thr	Leu	Phe	Trp	Leu	Leu	Leu	Thr	Leu	Leu	Ile	Arg	Lys	Met	Lys	770	775	780
Arg	Ser	Ser	Ser	Glu	Ile	Lys	Thr	Asp	Tyr	Leu	Ser	Ile	Ile	Met	Asp	785	790	795
Pro	Asp	Glu	Val	Pro	Leu	Asp	Glu	Gln	Cys	Glu	Arg	Leu	Pro	Tyr	Asp	805	810	815
Ala	Ser	Lys	Trp	Glu	Phe	Ala	Arg	Glu	Arg	Leu	Lys	Leu	Gly	Lys	Ser	820	825	830
Leu	Gly	Arg	Gly	Ala	Phe	Gly	Lys	Val	Val	Gln	Ala	Ser	Ala	Phe	Gly	835	840	845
Ile	Lys	Lys	Ser	Pro	Thr	Cys	Arg	Thr	Val	Ala	Val	Lys	Met	Leu	Lys	850	855	860
Glu	Gly	Ala	Thr	Ala	Ser	Glu	Tyr	Lys	Ala	Leu	Met	Thr	Glu	Leu	Lys	865	870	875
Ile	Leu	Thr	His	Ile	Gly	His	His	Leu	Asn	Val	Val	Asn	Leu	Leu	Gly	885	890	895
Ala	Cys	Thr	Lys	Gln	Gly	Gly	Pro	Leu	Met	Val	Ile	Val	Glu	Tyr	Cys	900	905	910

Lys Tyr Gly Asn Leu Ser Asn Tyr Leu Lys Ser Lys Arg Asp Leu Phe
 915 920 925
 Phe Leu Asn Lys Asp Ala Ala Leu His Met Glu Pro Lys Lys Glu Lys
 930 935 940
 Met Glu Pro Gly Leu Glu Gln Gly Lys Lys Pro Arg Leu Asp Ser Val
 945 950 955 960
 Thr Ser Ser Glu Ser Phe Ala Ser Ser Gly Phe Gln Glu Asp Lys Ser
 965 970 975
 Leu Ser Asp Val Glu Glu Glu Glu Asp Ser Asp Gly Phe Tyr Lys Glu
 980 985 990
 Pro Ile Thr Met Glu Asp Leu Ile Ser Tyr Ser Phe Gln Val Ala Arg
 995 1000 1005
 Gly Met Glu Phe Leu Ser Ser Arg Lys Cys Ile His Arg Asp Leu Ala
 1010 1015 1020
 Ala Arg Asn Ile Leu Leu Ser Glu Asn Asn Val Val Lys Ile Cys Asp
 1025 1030 1035 1040
 Phe Gly Leu Ala Arg Asp Ile Tyr Lys Asn Pro Asp Tyr Val Arg Lys
 1045 1050 1055
 Gly Asp Thr Arg Leu Pro Leu Lys Trp Met Ala Pro Glu Ser Ile Phe
 1060 1065 1070
 Asp Lys Ile Tyr Ser Thr Lys Ser Asp Val Trp Ser Tyr Gly Val Leu
 1075 1080 1085
 Leu Trp Glu Ile Phe Ser Leu Gly Gly Ser Pro Tyr Pro Gly Val Gln
 1090 1095 1100
 Met Asp Glu Asp Phe Cys Ser Arg Leu Arg Glu Gly Met Arg Met Arg
 1105 1110 1115 1120
 Ala Pro Glu Tyr Ser Thr Pro Glu Ile Tyr Gln Ile Met Leu Asp Cys
 1125 1130 1135
 Trp His Arg Asp Pro Lys Glu Arg Pro Arg Phe Ala Glu Leu Val Glu
 1140 1145 1150
 Lys Leu Gly Asp Leu Leu Gln Ala Asn Val Gln Gln Asp Gly Lys Asp
 1155 1160 1165
 Tyr Ile Pro Ile Asn Ala Ile Leu Thr Gly Asn Ser Gly Phe Thr Tyr
 1170 1175 1180
 Ser Thr Pro Ala Phe Ser Glu Asp Phe Phe Lys Glu Ser Ile Ser Ala
 1185 1190 1195 1200
 Pro Lys Phe Asn Ser Gly Ser Ser Asp Asp Val Arg Tyr Val Asn Ala
 1205 1210 1215
 Phe Lys Phe Met Ser Leu Glu Arg Ile Lys Thr Phe Glu Glu Leu Leu
 1220 1225 1230
 Pro Asn Ala Thr Ser Met Phe Asp Asp Tyr Gln Gly Asp Ser Ser Thr
 1235 1240 1245
 Leu Leu Ala Ser Pro Met Leu Lys Arg Phe Thr Trp Thr Asp Ser Lys
 1250 1255 1260
 Pro Lys Ala Ser Leu Lys Ile Asp Leu Arg Val Thr Ser Lys Ser Lys
 1265 1270 1275 1280
 Glu Ser Gly Leu Ser Asp Val Ser Arg Pro Ser Phe Cys His Ser Ser
 1285 1290 1295
 Cys Gly His Val Ser Glu Gly Lys Arg Arg Phe Thr Tyr Asp His Ala
 1300 1305 1310
 Glu Leu Glu Arg Lys Ile Ala Cys Cys Ser Pro Pro Pro Asp Tyr Asn
 1315 1320 1325
 Ser Val Val Leu Tyr Ser Thr Pro Pro Ile
 1330 1335

<210> 85
 <211> 289
 <212> PRT
 <213> Homo sapiens

<400> 85
 Met Glu Asn Gly Tyr Thr Tyr Glu Asp Tyr Lys Asn Thr Ala Glu Trp
 1 5 10 15
 Leu Leu Ser His Thr Lys His Arg Pro Gln Val Ala Ile Ile Cys Gly
 20 25 30
 Ser Gly Leu Gly Gly Leu Thr Asp Lys Leu Thr Gln Ala Gln Ile Phe
 35 40 45
 Asp Tyr Ser Glu Ile Pro Asn Phe Pro Arg Ser Thr Val Pro Gly His
 50 55 60
 Ala Gly Arg Leu Val Phe Gly Phe Leu Asn Gly Arg Ala Cys Val Met
 65 70 75 80
 Met Gln Gly Arg Phe His Met Tyr Glu Gly Tyr Pro Leu Trp Lys Val
 85 90 95
 Thr Phe Pro Val Arg Val Phe His Leu Leu Gly Val Asp Thr Leu Val
 100 105 110
 Val Thr Asn Ala Ala Gly Gly Leu Asn Pro Lys Phe Glu Val Gly Asp
 115 120 125
 Ile Met Leu Ile Arg Asp His Ile Asn Leu Pro Gly Phe Ser Gly Gln
 130 135 140
 Asn Pro Leu Arg Gly Pro Asn Asp Glu Arg Phe Gly Asp Arg Phe Pro
 145 150 155 160
 Ala Met Ser Asp Ala Tyr Asp Arg Thr Met Arg Gln Arg Ala Leu Ser
 165 170 175
 Thr Trp Lys Gln Met Gly Glu Gln Arg Glu Leu Gln Glu Gly Thr Tyr
 180 185 190
 Val Met Val Ala Gly Pro Ser Phe Glu Thr Val Ala Glu Cys Arg Val
 195 200 205
 Leu Gln Lys Leu Gly Ala Asp Ala Val Gly Met Ser Thr Val Pro Glu
 210 215 220
 Val Ile Val Ala Arg His Cys Gly Leu Arg Val Phe Gly Phe Ser Leu
 225 230 235 240
 Ile Thr Asn Lys Val Ile Met Asp Tyr Glu Ser Leu Glu Lys Ala Asn
 245 250 255
 His Glu Glu Val Leu Ala Ala Gly Lys Gln Ala Ala Gln Lys Leu Glu
 260 265 270
 Gln Phe Val Ser Ile Leu Met Ala Ser Ile Pro Leu Pro Asp Lys Ala
 275 280 285
 Ser

<210> 86
 <211> 509
 <212> PRT
 <213> Homo sapiens

<400> 86
 Met Pro Pro Glu Gln His His Gln Pro Asn Lys Val Ser Pro Lys Leu
 1 5 10 15
 Cys Ser Ala Gln Pro Ala Pro Arg Gly Arg Arg Arg Pro Gly Gly Arg
 20 25 30
 Gly Pro Ala Ala Gly Gly Arg Thr Phe Ala Asn Ala Arg Phe Val Leu
 35 40 45
 Gly Glu Gly Val Ala Ile Glu Arg Gly Ala Asp Asp Thr Thr Gln Pro
 50 55 60
 Pro Val Ala Gly Ser Val Asn Pro Glu Gly Ala Ala Ala Ala Leu Val
 65 70 75 80
 Pro Leu Ala Gly Ala Arg Val Ala Ala Ala Asp Ala Leu His Asp
 85 90 95
 Ala Pro Arg Ala Val Pro Gly Leu Leu Ala Leu Gly Leu Val Thr Gly
 100 105 110

Gln	Ala	Asp	Gln	Arg	Pro	Gly	Ala	Gly	Ala	Arg	Gln	Gln	Gln	Gln	Gln					
		115							120				125							
Pro	Gln	Gln	Arg	Asp	Gln	Glu	Val	Pro	Ala	Ala	Gly	Gln	Pro	Pro	Val					
		130					135					140								
Pro	Arg	His	Gln	Val	His	Pro	Pro	Ala	Pro	Pro	Pro	Pro	Pro	Pro	Arg					
145						150				155					160					
Ser	Arg	Ala	Gly	Ser	Gly	Ala	Gly	Ala	Leu	Pro	Cys	Ala	Gly	His	Thr					
				165					170					175						
Arg	Arg	Arg	Arg	Arg	Thr	Ser	Ser	Pro	Arg	Ser	Ser	Pro	Pro	Leu	Ser					
				180					185					190						
Gly	Pro	Pro	Gly	Arg	Ala	Ser	Pro	Arg	Gly	Ala	Arg	Pro	Pro	Pro	Leu					
		195					200					205								
Leu	Arg	Ala	Ala	Pro	Thr	Pro	Ser	Pro	Arg	Ala	Leu	Ala	Pro	Ala	Ala					
		210					215					220								
Ala	Ser	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Gly	Arg	Glu	Gly	Glu	Lys					
225						230					235				240					
Arg	Lys	Lys	Phe	Pro	Pro	Gly	Ser	Ser	Gly	Ser	Thr	Gln	Thr	Ser	Gly					
				245					250					255						
Ala	Ala	Ala	Ala	Val	Ala	Ala	Ala	Leu	Gly	Ser	Ser	Pro	Gly	Arg	Arg					
				260				265					270							
Arg	Leu	Leu	Pro	Leu	Leu	Leu	Arg	Val	Gly	Arg	Pro	Arg	Ser	Gly	Ala					
		275					280					285								
Ala	Ser	Gly	Pro	Val	Pro	Ala	Ser	Arg	Ala	Ala	Glu	Trp	Ala	Arg	Trp					
		290					295				300									
Arg	Ser	Thr	Arg	Ser	Ala	Ala	Ser	Ala	Pro	Arg	Ala	Pro	Leu	Ala	Ser					
305					310					315					320					
Leu	Leu	Arg	Arg	Ser	Ser	Gly	Arg	Leu	Phe	Met	Ala	Gly	Ala	Ser	Ala					
				325					330					335						
Ala	Arg	Ala	Ala	Pro	Ser	Pro	Ile	Leu	Pro	Pro	Pro	Pro	Asp	Leu	Pro					
				340			345						350							
Pro	Thr	Pro	Thr	Arg	Arg	Ala	Pro	Leu	Ile	Gly	Cys	Pro	Pro	Ser	Pro					
		355					360					365								
Ala	Arg	Pro	Ala	Pro	Ser	Ala	Ser	Pro	Ser	Pro	Ser	Arg	Ala	Ala	Gly					
		370				375					380									
Pro	Phe	Leu	Pro	Pro	Ser	His	Ala	Ser	Thr	Ser	Ser	Arg	Ser	Pro	Pro					
385					390					395					400					
Pro	Arg	Ala	Arg	Arg	Thr	Glu	Pro	Ala	Val	Pro	Pro	Ser	Cys	Gly	Ser					
				405					410					415						
Gly	Pro	Gly	Ala	Ala	Gly	Ala	Leu	Arg	Met	Gly	Leu	Gly	Arg	Thr	Gln					
			420					425					430							
Arg	Ala	Ala	Arg	Val	Ala	Val	Ser	Arg	Ala	Leu	Ala	Gly	Thr	Val	Ala					
		435					440					445								
Ala	Ala	Ala	Gly	Leu	Gly	Ala	Arg	Arg	Ala	Arg	Arg	Leu	His	Leu	Arg					
		450				455					460									
Gly	Gln	Ile	Gly	Val	Arg	Arg	Val	Ala	Gly	Thr	Pro	Glu	Ala	Arg	Gly					
465					470				475						480					
Arg	Gly	Asp	Gly	Cys	Ser	Leu	Gly	Arg	Val	Ser	Pro	Asp	Arg	Thr	Pro					
				485					490					495						
Gly	Lys	Gly	Ser	Lys	Gly	Met	Glu	Pro	His	Thr	Gly									
			500					505												

<210> 87

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> nuclear target motif

<400> 87
Arg Arg Arg Pro
1

<210> 88
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> nuclear target motif

<400> 88
Arg Arg Arg Arg
1

<210> 89
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> nuclear target motif

<400> 89
Lys Arg Lys Lys
1

<210> 90
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> nuclear target motif

<400> 90
Pro Pro Arg Ala Arg Arg Thr
1 5

<210> 91
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> nuclear target motif

<400> 91
Pro Arg Ala Arg Arg Thr Glu
1 5

<210> 92
<211> 712
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (510)...(510)
<223> Xaa = Phe, Leu, Ile or Val

<400> 92

Met	Lys	Thr	Ala	Ala	Leu	Thr	Pro	Pro	Arg	Ser	Pro	Pro	Pro	Pro	Pro	Pro
1				5					10					15		
Leu	Arg	Pro	Pro	Pro	Met	Lys	Arg	Leu	Pro	Leu	Leu	Val	Val	Phe	Ser	
			20					25					30			
Thr	Leu	Leu	Asn	Cys	Ser	Tyr	Thr	Gln	Asn	Cys	Thr	Lys	Thr	Pro	Cys	
		35					40					45				
Leu	Pro	Asn	Ala	Lys	Cys	Glu	Ile	Arg	Asn	Gly	Ile	Glu	Ala	Cys	Tyr	
	50					55					60					
Cys	Asn	Met	Gly	Phe	Ser	Gly	Asn	Gly	Val	Thr	Ile	Cys	Glu	Asp	Asp	
65					70				75					80		
Asn	Glu	Cys	Gly	Asn	Leu	Thr	Gln	Ser	Cys	Gly	Glu	Asn	Ala	Asn	Cys	
				85					90					95		
Thr	Asn	Thr	Glu	Gly	Ser	Tyr	Tyr	Cys	Met	Cys	Val	Pro	Gly	Phe	Arg	
			100					105					110			
Ser	Ser	Ser	Asn	Gln	Asp	Arg	Phe	Ile	Thr	Asn	Asp	Gly	Thr	Val	Cys	
		115					120					125				
Ile	Glu	Asn	Val	Asn	Ala	Asn	Cys	His	Leu	Asp	Asn	Val	Cys	Ile	Ala	
	130					135					140					
Ala	Asn	Ile	Asn	Lys	Thr	Leu	Thr	Lys	Ile	Arg	Ser	Ile	Lys	Glu	Pro	
145					150					155					160	
Val	Ala	Leu	Leu	Gln	Glu	Val	Tyr	Arg	Asn	Ser	Val	Thr	Asp	Leu	Ser	
				165					170					175		
Pro	Thr	Asp	Ile	Thr	Tyr	Ile	Glu	Ile	Leu	Ala	Glu	Ser	Ser	Ser	Ser	
			180				185					190				
Leu	Leu	Gly	Tyr	Lys	Asn	Asn	Thr	Ile	Ser	Ala	Lys	Asp	Thr	Leu	Ser	
		195					200					205				
Asn	Ser	Thr	Leu	Thr	Glu	Phe	Val	Lys	Thr	Val	Asn	Asn	Phe	Val	Gln	
	210					215					220					
Arg	Asp	Thr	Phe	Val	Val	Trp	Asp	Lys	Leu	Ser	Val	Asn	His	Arg	Arg	
225					230					235					240	
Thr	His	Leu	Thr	Lys	Leu	Met	His	Thr	Val	Glu	Gln	Ala	Thr	Leu	Arg	
				245					250					255		
Ile	Ser	Gln	Ser	Phe	Gln	Lys	Thr	Thr	Glu	Phe	Asp	Thr	Asn	Ser	Thr	
			260					265					270			
Asp	Ile	Ala	Leu	Lys	Val	Phe	Phe	Phe	Asp	Ser	Tyr	Asn	Met	Lys	His	
		275					280					285				
Ile	His	Pro	His	Met	Asn	Met	Asp	Gly	Asp	Tyr	Ile	Asn	Ile	Phe	Pro	
	290					295					300					
Lys	Arg	Lys	Ala	Ala	Tyr	Asp	Ser	Asn	Gly	Asn	Val	Ala	Val	Ala	Phe	
305					310					315					320	
Leu	Tyr	Tyr	Lys	Ser	Ile	Gly	Pro	Leu	Leu	Ser	Ser	Ser	Asp	Asn	Phe	
				325					330					335		
Leu	Leu	Lys	Pro	Gln	Asn	Tyr	Asp	Asn	Ser	Glu	Glu	Glu	Glu	Arg	Val	
			340					345					350			
Ile	Ser	Ser	Val	Ile	Ser	Val	Ser	Met	Ser	Ser	Asn	Pro	Pro	Thr	Leu	
			355					360					365			
Tyr	Glu	Leu	Glu	Lys	Ile	Thr	Phe	Thr	Leu	Ser	His	Arg	Lys	Val	Thr	
	370					375					380					
Asp	Arg	Tyr	Arg	Ser	Leu	Cys	Ala	Phe	Trp	Asn	Tyr	Ser	Pro	Asp	Thr	
385					390					395					400	
Met	Asn	Gly	Ser	Trp	Ser	Ser	Glu	Gly	Cys	Glu	Leu	Thr	Tyr	Ser	Asn	
				405					410					415		
Glu	Thr	His	Thr	Ser	Cys	Arg	Cys	Asn	His	Leu	Thr	His	Phe	Ala	Ile	
			420					425					430			
Leu	Met	Ser	Ser	Gly	Pro	Ser	Ile	Gly	Ile	Lys	Asp	Tyr	Asn	Ile	Leu	
		435					440					445				
Thr	Arg	Ile	Thr	Gln	Leu	Gly	Ile	Ile	Ile	Ser	Leu	Ile	Cys	Leu	Ala	
	450					455					460					
Ile	Cys	Ile	Phe	Thr	Phe	Trp	Phe	Phe	Ser	Glu	Ile	Gln	Ser	Thr	Arg	
465					470					475					480	

Thr Thr Ile His Lys Asn Leu Cys Cys Ser Leu Phe Leu Ala Glu Leu
 485 490 495
 Val Phe Leu Val Gly Ile Asn Thr Asn Thr Asn Lys Leu Xaa Ser Val
 500 505 510
 Ser Ile Ile Ala Gly Leu Leu His Tyr Phe Phe Leu Ala Ala Phe Ala
 515 520 525
 Trp Met Cys Ile Glu Gly Ile His Leu Tyr Leu Ile Val Val Gly Val
 530 535 540
 Ile Tyr Asn Lys Gly Phe Leu His Lys Asn Phe Tyr Ile Phe Gly Tyr
 545 550 555 560
 Leu Ser Pro Ala Val Val Val Gly Phe Ser Ala Ala Leu Gly Tyr Arg
 565 570 575
 Tyr Tyr Gly Thr Thr Lys Val Cys Trp Leu Ser Thr Glu Thr His Phe
 580 585 590
 Ile Trp Ser Phe Ile Gly Pro Ala Cys Leu Ile Ile Leu Val Asn Leu
 595 600 605
 Leu Ala Phe Gly Val Ile Ile Tyr Lys Val Phe Arg His Thr Ala Gly
 610 615 620
 Leu Lys Pro Glu Val Ser Cys Phe Glu Asn Ile Arg Ser Cys Ala Arg
 625 630 635 640
 Gly Ala Leu Ala Leu Leu Phe Leu Leu Gly Thr Thr Trp Ile Phe Gly
 645 650 655
 Val Leu His Val Val His Ala Ser Val Val Thr Ala Tyr Leu Phe Thr
 660 665 670
 Val Ser Asn Ala Phe Gln Gly Met Phe Ile Phe Leu Phe Leu Cys Val
 675 680 685
 Leu Ser Arg Lys Ile Gln Glu Glu Tyr Tyr Arg Leu Phe Lys Asn Val
 690 695 700
 Pro Cys Cys Phe Gly Cys Leu Arg
 705 710

<210> 93
 <211> 948
 <212> PRT
 <213> Homo sapiens

<400> 93
 Met Ile Leu Ser Leu Leu Phe Ser Leu Gly Gly Pro Leu Gly Trp Gly
 1 5 10 15
 Leu Leu Gly Ala Trp Ala Gln Ala Ser Ser Thr Ser Leu Ser Asp Leu
 20 25 30
 Gln Ser Ser Arg Thr Pro Gly Val Trp Lys Ala Glu Ala Glu Asp Thr
 35 40 45
 Ser Lys Asp Pro Val Gly Arg Asn Trp Cys Pro Tyr Pro Met Ser Lys
 50 55 60
 Leu Val Thr Leu Leu Ala Leu Cys Lys Thr Glu Lys Phe Leu Ile His
 65 70 75 80
 Ser Gln Gln Pro Cys Pro Gln Gly Ala Pro Asp Cys Gln Lys Val Lys
 85 90 95
 Val Met Tyr Arg Met Ala His Lys Pro Val Tyr Gln Val Lys Gln Lys
 100 105 110
 Val Leu Thr Ser Leu Ala Trp Arg Cys Cys Pro Gly Tyr Thr Gly Pro
 115 120 125
 Asn Cys Glu His His Asp Ser Met Ala Ile Pro Glu Pro Ala Asp Pro
 130 135 140
 Gly Asp Ser His Gln Glu Pro Gln Asp Gly Pro Val Ser Phe Lys Pro
 145 150 155 160
 Gly His Leu Ala Ala Val Ile Asn Glu Val Glu Val Gln Gln Glu Gln
 165 170 175
 Gln Glu His Leu Leu Gly Asp Leu Gln Asn Asp Val His Arg Val Ala
 180 185 190

Asp	Ser	Leu	Pro	Gly	Leu	Trp	Lys	Ala	Leu	Pro	Gly	Asn	Leu	Thr	Ala
		195					200					205			
Ala	Val	Met	Glu	Ala	Asn	Gln	Thr	Gly	His	Glu	Phe	Pro	Asp	Arg	Ser
		210					215					220			
Leu	Glu	Gln	Val	Leu	Leu	Pro	His	Val	Asp	Thr	Phe	Leu	Gln	Val	His
225					230					235					240
Phe	Ser	Pro	Ile	Trp	Arg	Ser	Phe	Asn	Gln	Ser	Leu	His	Ser	Leu	Thr
				245						250					
Gln	Ala	Ile	Arg	Asn	Leu	Ser	Leu	Asp	Val	Glu	Ala	Asn	Arg	Gln	Ala
				260				265						270	
Ile	Ser	Arg	Val	Gln	Asp	Ser	Ala	Val	Ala	Arg	Ala	Asp	Phe	Gln	Glu
				275			280					285			
Leu	Gly	Ala	Lys	Phe	Glu	Ala	Lys	Val	Gln	Glu	Asn	Thr	Gln	Arg	Val
						295					300				
Gly	Gln	Leu	Arg	Gln	Asp	Val	Glu	Asp	Arg	Leu	His	Ala	Gln	His	Phe
305					310					315					320
Thr	Leu	His	Arg	Ser	Ile	Ser	Glu	Leu	Gln	Ala	Asp	Val	Asp	Thr	Lys
				325						330					
Leu	Lys	Arg	Leu	His	Lys	Ala	Gln	Glu	Ala	Pro	Gly	Thr	Asn	Gly	Ser
				340				345					350		
Leu	Val	Leu	Ala	Thr	Pro	Gly	Ala	Gly	Ala	Arg	Pro	Glu	Pro	Asp	Ser
				355			360					365			
Leu	Gln	Ala	Arg	Leu	Gly	Gln	Leu	Gln	Arg	Asn	Leu	Ser	Glu	Leu	His
					375					380					
Met	Thr	Thr	Ala	Arg	Arg	Glu	Glu	Glu	Leu	Gln	Tyr	Thr	Leu	Glu	Asp
385					390					395					400
Met	Arg	Ala	Thr	Leu	Thr	Arg	His	Val	Asp	Glu	Ile	Lys	Glu	Leu	Tyr
				405					410						
Ser	Glu	Ser	Asp	Glu	Thr	Phe	Asp	Gln	Ile	Ser	Lys	Val	Glu	Arg	Gln
				420				425					430		
Val	Glu	Glu	Leu	Gln	Val	Asn	His	Thr	Ala	Leu	Arg	Glu	Leu	Arg	Val
				435			440					445			
Ile	Leu	Met	Glu	Lys	Ser	Leu	Ile	Met	Glu	Glu	Asn	Lys	Glu	Glu	Val
					455						460				
Glu	Arg	Gln	Leu	Leu	Glu	Leu	Asn	Leu	Thr	Leu	Gln	His	Leu	Gln	Gly
465					470					475					480
Gly	His	Ala	Asp	Leu	Ile	Lys	Tyr	Val	Lys	Asp	Cys	Asn	Cys	Gln	Lys
				485					490						495
Leu	Tyr	Leu	Asp	Leu	Asp	Val	Ile	Arg	Glu	Gly	Gln	Arg	Asp	Ala	Thr
				500				505					510		
Arg	Ala	Leu	Glu	Glu	Thr	Gln	Val	Ser	Leu	Asp	Glu	Arg	Arg	Gln	Leu
				515			520					525			
Asp	Gly	Ser	Ser	Leu	Gln	Ala	Leu	Gln	Asn	Ala	Val	Asp	Ala	Val	Ser
					535						540				
Leu	Ala	Val	Asp												

Arg Pro Ala Glu His Leu Glu Pro Ser His Asp Ala Gly Arg Glu Glu
675 680 685
Ala Ala Thr Thr Ala Leu Ala Gly Leu Ala Arg Glu Leu Gln Ser Leu
690 695 700
Ser Asn Asp Val Lys Asn Val Gly Arg Cys Cys Glu Ala Glu Ala Gly
705 710 715 720
Ala Gly Ala Ala Ser Leu Asn Ala Ser Leu Asp Gly Leu His Asn Ala
725 730 735
Leu Phe Ala Thr Gln Arg Ser Leu Glu Gln His Gln Arg Leu Phe His
740 745 750
Ser Leu Phe Gly Asn Phe Gln Gly Leu Met Glu Ala Asn Val Ser Leu
755 760 765
Asp Leu Gly Lys Leu Gln Thr Met Leu Ser Arg Lys Gly Lys Lys Gln
770 775 780
Gln Lys Asp Leu Glu Ala Pro Arg Lys Arg Asp Lys Lys Glu Ala Glu
785 790 795 800
Pro Leu Val Asp Ile Arg Val Thr Gly Pro Val Pro Gly Ala Leu Gly
805 810 815
Ala Ala Leu Trp Glu Ala Ser Pro Val Ala Phe Tyr Ala Ser Phe Ser
820 825 830
Glu Gly Thr Ala Ala Leu Gln Thr Val Lys Phe Asn Thr Thr Tyr Ile
835 840 845
Asn Ile Gly Ser Ser Tyr Phe Pro Glu His Gly Tyr Phe Arg Ala Pro
850 855 860
Glu Arg Gly Val Tyr Leu Phe Ala Val Ser Val Glu Phe Gly Pro Gly
865 870 875 880
Pro Gly Thr Gly Gln Leu Val Phe Gly Gly His His Arg Thr Pro Val
885 890 895
Cys Thr Thr Gly Gln Gly Ser Gly Ser Thr Ala Thr Val Phe Ala Met
900 905 910
Ala Glu Leu Gln Lys Gly Glu Arg Val Trp Phe Glu Leu Thr Gln Gly
915 920 925
Ser Ile Thr Lys Arg Ser Leu Ser Gly Thr Ala Phe Gly Gly Phe Leu
930 935 940
Met Phe Lys Thr
945

<210> 94
<211> 647
<212> PRT
<213> Homo sapiens

<400> 94
Met Gly Lys Asp Phe Met Thr Lys Thr Pro Lys Ala Phe Ala Thr Lys
1 5 10 15
Ala Lys Ile Asp Lys Trp Asp Leu Ile Lys Leu Lys Ser Phe Cys Thr
20 25 30
Ala Lys Glu Thr Ile Ile Arg Val Asn Ser Gln Pro Thr Asp Trp Gln
35 40 45
Lys Thr Phe Ala Ile Tyr Pro Ser Asp Lys Gly Val Ile Ala Arg Ile
50 55 60
Tyr Lys Glu Leu Glu Gln Ile Tyr Lys Lys Lys Lys Pro Thr Lys Thr
65 70 75 80
Leu Arg Thr His Phe Leu Ser Arg Pro Lys Gly Asn Cys Trp Pro Leu
85 90 95
Gly Pro Arg Gly Asp Ser Trp Gln Leu Gly Gly Pro Ser Gly Ala Arg
100 105 110
Ala Glu Gly Lys Gly Gly Gly Thr Gly Leu Gly Lys Pro Ala Val Glu
115 120 125
Gly Gly Asp Arg Ala Pro Asp Thr Ala Leu Arg Pro Arg Ala Gly Gln
130 135 140

10021660-120601

Ile	Gln	Val	Gly	Ser	Ser	Ser	Ala	Cys	Gly	Ala	Ser	Glu	Asn	Glu	Ala	
145					150					155					160	
Gly	Val	Arg	Pro	Val	Pro	Pro	Leu	Ala	Gly	Ala	Leu	Ala	Arg	Ala	Gly	
				165					170						175	
Arg	Arg	Arg	Thr	Pro	His	Cys	Arg	Pro	Cys	Trp	Leu	Leu	Gly	Leu	Gly	
			180						185					190		
Gly	Leu	Leu	Gln	Pro	Ala	Pro	Arg	Tyr	His	Glu	Ala	Ala	Gly	Gly	Arg	
		195					200					205				
Gly	Gly	Leu	His	Pro	Ala	Arg	Trp	Gly	Ala	Gln	His	Arg	Ala	Cys	Gly	
	210					215					220					
Arg	Arg	Ala	Ala	Arg	Cys	Ala	Arg	Ala	Pro	Ala	Gly	Arg	Pro	Arg	Ala	
225					230					235					240	
Arg	Arg	Gly	Leu	Gln	Arg	Pro	Ala	Val	Leu	Gly	Arg	Thr	Gly	Ala	Gln	
				245						250					255	
Ala	Phe	Pro	Leu	His	Pro	Gly	Glu	Arg	Ala	Phe	Ala	Gly	Phe	Leu	Leu	
			260					265					270			
Ala	Val	Leu	Arg	Pro	Arg	Arg	Ser	Arg	Lys	Arg	His	Ala	Ala	Val	Gly	
		275					280					285				
Gly	Gly	Ala	Pro	Thr	Leu	Leu	His	Arg	Ala	Glu	Met	Arg	Gly	Thr	Pro	
	290					295					300					
Gly	His	Arg	Trp	Gly	Arg	Ala	Arg	Ser	Trp	Lys	Glu	Met	Arg	Cys	His	
305					310					315					320	
Leu	Arg	Ala	Asn	Gly	Tyr	Leu	Cys	Lys	Tyr	Gln	Phe	Glu	Val	Leu	Cys	
				325						330					335	
Pro	Ala	Pro	Arg	Pro	Gly	Ala	Ala	Ser	Asn	Leu	Ser	Tyr	Arg	Ala	Pro	
			340					345					350			
Phe	Gln	Leu	His	Ser	Ala	Ala	Leu	Asp	Phe	Ser	Pro	Pro	Gly	Thr	Glu	
		355					360					365				
Val	Ser	Ala	Leu	Cys	Arg	Gly	Gln	Leu	Pro	Ile	Ser	Val	Thr	Cys	Ile	
	370					375					380					
Ala	Asp	Glu	Ile	Gly	Ala	Arg	Trp	Asp	Lys	Leu	Ser	Gly	Asp	Val	Leu	
385					390					395					400	
Cys	Pro	Cys	Pro	Gly	Arg	Tyr	Leu	Arg	Ala	Gly	Lys	Cys	Ala	Glu	Leu	
				405					410						415	
Pro	Asn	Cys	Leu	Asp	Asp	Leu	Gly	Gly	Phe	Ala	Cys	Glu	Cys	Ala	Thr	
			420				425						430			
Gly	Phe	Glu	Leu	Gly	Lys	Asp	Gly	Arg	Ser	Cys	Val	Thr	Ser	Gly	Glu	
		435					440					445				
Gly	Gln	Pro	Thr	Leu	Gly	Gly	Thr	Gly	Val	Pro	Thr	Arg	Arg	Pro	Pro	
	450					455					460					
Ala	Thr	Ala	Thr	Ser	Pro	Val	Pro	Gln	Arg	Thr	Trp	Pro	Ile	Arg	Val	
465					470					475					480	
Asp	Glu	Lys	Leu	Gly	Glu	Thr	Pro	Leu	Val	Pro	Glu	Gln	Asp	Asn	Ser	
				485					490					495		
Val	Thr	Ser	Ile	Pro	Glu	Ile	Pro	Arg	Trp	Gly	Ser	Gln	Ser	Thr	Met	
			500					505					510			
Ser	Thr	Leu	Gln	Met	Ser	Leu	Gln	Ala	Glu	Ser	Lys	Ala	Thr	Ile	Thr	
		515					520					525				
Pro	Ser	Gly	Ser	Val	Ile	Ser	Lys	Phe	Asn	Ser	Thr	Thr	Ser	Ser	Ala	
	530					535					540					
Thr	Pro	Gln	Ala	Phe	Asp	Ser	Ser	Ser	Ala	Val	Val	Phe	Ile	Phe	Val	
545					550					555					560	
Ser	Thr	Ala	Val	Val	Val	Leu	Val	Ile	Leu	Thr	Met	Thr	Val	Leu	Gly	
				565				570						575		
Leu	Val	Lys	Leu	Cys	Phe	His	Glu	Ser	Pro	Ser	Ser	Gln	Pro	Arg	Lys	
			580					585					590			
Glu	Ser	Met	Gly	Pro	Pro	Gly	Leu	Glu	Ser	Asp	Pro	Glu	Pro	Ala	Ala	
	595						600					605				
Leu	Gly	Ser	Ser	Ser	Ala	His	Cys	Thr	Asn	Asn	Gly	Val	Lys	Val	Gly	
	610					615						620				

Asp Cys Asp Leu Arg Asp Arg Ala Glu Gly Ala Leu Leu Ala Glu Ser
 625 630 635 640
 Pro Leu Gly Ser Ser Asp Ala
 645

<210> 95
 <211> 462
 <212> PRT
 <213> Homo sapiens

<400> 95
 Met Ile Gln Thr Val Pro Asp Pro Ala Ala His Ile Lys Glu Ala Leu
 1 5 10 15
 Ser Val Val Ser Glu Asp Gln Ser Leu Phe Glu Cys Ala Tyr Gly Thr
 20 25 30
 Pro His Leu Ala Lys Thr Glu Met Thr Ala Ser Ser Ser Ser Asp Tyr
 35 40 45
 Gly Gln Thr Ser Lys Met Ser Pro Arg Val Pro Gln Gln Asp Trp Leu
 50 55 60
 Ser Gln Pro Pro Ala Arg Val Thr Ile Lys Met Glu Cys Asn Pro Ser
 65 70 75 80
 Gln Val Asn Gly Ser Arg Asn Ser Pro Asp Glu Cys Ser Val Ala Lys
 85 90 95
 Gly Gly Lys Met Val Gly Ser Pro Asp Thr Val Gly Met Asn Tyr Gly
 100 105 110
 Ser Tyr Met Glu Glu Lys His Met Pro Pro Pro Asn Met Thr Thr Asn
 115 120 125
 Glu Arg Arg Val Ile Val Pro Ala Asp Pro Thr Leu Trp Ser Thr Asp
 130 135 140
 His Val Arg Gln Trp Leu Glu Trp Ala Val Lys Glu Tyr Gly Leu Pro
 145 150 155 160
 Asp Val Asn Ile Leu Leu Phe Gln Asn Ile Asp Gly Lys Glu Leu Cys
 165 170 175
 Lys Met Thr Lys Asp Asp Phe Gln Arg Leu Thr Pro Ser Tyr Asn Ala
 180 185 190
 Asp Ile Leu Leu Ser His Leu His Tyr Leu Arg Glu Thr Pro Leu Pro
 195 200 205
 His Leu Thr Ser Asp Asp Val Asp Lys Ala Leu Gln Asn Ser Pro Arg
 210 215 220
 Leu Met His Ala Arg Asn Thr Asp Leu Pro Tyr Glu Pro Pro Arg Arg
 225 230 235 240
 Ser Ala Trp Thr Gly His Gly His Pro Thr Pro Gln Ser Lys Ala Ala
 245 250 255
 Gln Pro Ser Pro Ser Thr Val Pro Lys Thr Glu Asp Gln Arg Pro Gln
 260 265 270
 Leu Asp Pro Tyr Gln Ile Leu Gly Pro Thr Ser Ser Arg Leu Ala Asn
 275 280 285
 Pro Gly Ser Gly Gln Ile Gln Leu Trp Gln Phe Leu Leu Glu Leu Leu
 290 295 300
 Ser Asp Ser Ser Asn Ser Ser Cys Ile Thr Trp Glu Gly Thr Asn Gly
 305 310 315 320
 Glu Phe Lys Met Thr Asp Pro Asp Glu Val Ala Arg Arg Trp Gly Glu
 325 330 335
 Arg Lys Ser Lys Pro Asn Met Asn Tyr Asp Lys Leu Ser Arg Ala Leu
 340 345 350
 Arg Tyr Tyr Tyr Asp Lys Asn Ile Met Thr Lys Val His Gly Lys Arg
 355 360 365
 Tyr Ala Tyr Lys Phe Asp Phe His Gly Ile Ala Gln Ala Leu Gln Pro
 370 375 380
 His Pro Pro Glu Ser Ser Leu Tyr Lys Tyr Pro Ser Asp Leu Pro Tyr
 385 390 395 400

Met Gly Ser Tyr His Ala His Pro Gln Lys Met Asn Phe Val Ala Pro
 405 410 415
 His Pro Pro Ala Leu Pro Val Thr Ser Ser Ser Phe Phe Ala Ala Pro
 420 425 430
 Asn Pro Tyr Trp Asn Ser Pro Thr Gly Gly Ile Tyr Pro Asn Thr Arg
 435 440 445
 Leu Pro Thr Ser His Met Pro Ser His Leu Gly Thr Tyr Tyr
 450 455 460

<210> 96
 <211> 503
 <212> PRT
 <213> Homo sapiens

<400> 96
 Met Thr Leu Gly Ser Pro Arg Lys Gly Leu Leu Met Leu Leu Met Ala
 1 5 10 15
 Leu Val Thr Gln Gly Asp Pro Val Lys Pro Ser Arg Gly Pro Leu Val
 20 25 30
 Thr Cys Thr Cys Glu Ser Pro His Cys Lys Gly Pro Thr Cys Arg Gly
 35 40 45
 Ala Trp Cys Thr Val Val Leu Val Arg Glu Glu Gly Arg His Pro Gln
 50 55 60
 Glu His Arg Gly Cys Gly Asn Leu His Arg Glu Leu Cys Arg Gly Arg
 65 70 75 80
 Pro Thr Glu Phe Val Asn His Tyr Cys Cys Asp Ser His Leu Cys Asn
 85 90 95
 His Asn Val Ser Leu Val Leu Glu Ala Thr Gln Pro Pro Ser Glu Gln
 100 105 110
 Pro Gly Thr Asp Gly Gln Leu Ala Leu Ile Leu Gly Pro Val Leu Ala
 115 120 125
 Leu Leu Ala Leu Val Ala Leu Gly Val Leu Gly Leu Trp His Val Arg
 130 135 140
 Arg Arg Gln Glu Lys Gln Arg Gly Leu His Ser Glu Leu Gly Glu Ser
 145 150 155 160
 Ser Leu Ile Leu Lys Ala Ser Glu Gln Gly Asp Thr Met Leu Gly Asp
 165 170 175
 Leu Leu Asp Ser Asp Cys Thr Thr Gly Ser Gly Ser Gly Leu Pro Phe
 180 185 190
 Leu Val Gln Arg Thr Val Ala Arg Gln Val Ala Leu Val Glu Cys Val
 195 200 205
 Gly Lys Gly Arg Tyr Gly Glu Val Trp Arg Gly Leu Trp His Gly Glu
 210 215 220
 Ser Val Ala Val Lys Ile Phe Ser Ser Arg Asp Glu Gln Ser Trp Phe
 225 230 235 240
 Arg Glu Thr Glu Ile Tyr Asn Thr Val Leu Leu Arg His Asp Asn Ile
 245 250 255
 Leu Gly Phe Ile Ala Ser Asp Met Thr Ser Arg Asn Ser Ser Thr Gln
 260 265 270
 Leu Trp Leu Ile Thr His Tyr His Glu His Gly Ser Leu Tyr Asp Phe
 275 280 285
 Leu Gln Arg Gln Thr Leu Glu Pro His Leu Ala Leu Arg Leu Ala Val
 290 295 300
 Ser Ala Ala Cys Gly Leu Ala His Leu His Val Glu Ile Phe Gly Thr
 305 310 315 320
 Gln Gly Lys Pro Ala Ile Ala His Arg Asp Phe Lys Ser Arg Asn Val
 325 330 335
 Leu Val Lys Ser Asn Leu Gln Cys Cys Ile Ala Asp Leu Gly Leu Ala
 340 345 350
 Val Met His Ser Gln Gly Ser Asp Tyr Leu Asp Ile Gly Asn Asn Pro
 355 360 365

Arg Val Gly Thr Lys Arg Tyr Met Ala Pro Glu Val Leu Asp Glu Gln
 370 375 380
 Ile Arg Thr Asp Cys Phe Glu Ser Tyr Lys Trp Thr Asp Ile Trp Ala
 385 390 395 400
 Phe Gly Leu Val Leu Trp Glu Ile Ala Arg Arg Thr Ile Val Asn Gly
 405 410 415
 Ile Val Glu Asp Tyr Arg Pro Pro Phe Tyr Asp Val Val Pro Asn Asp
 420 425 430
 Pro Ser Phe Glu Asp Met Lys Lys Val Val Cys Val Asp Gln Gln Thr
 435 440 445
 Pro Thr Ile Pro Asn Arg Leu Ala Ala Asp Pro Val Leu Ser Gly Leu
 450 455 460
 Ala Gln Met Met Arg Glu Cys Trp Tyr Pro Asn Pro Ser Ala Arg Leu
 465 470 475 480
 Thr Ala Leu Arg Ile Lys Lys Thr Leu Gln Lys Ile Ser Asn Ser Pro
 485 490 495
 Glu Lys Pro Lys Val Ile Gln
 500

<210> 97
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 97
 Met Glu Trp Asn Gly Met Ala Trp Asn Arg Ile Lys Trp Asn Gly Ile
 1 5 10 15
 Asn Ser Ser Gly Met Glu Trp Asn Gly Met Glu Trp Asn Ala Val Gln
 20 25 30
 Cys Asn Arg Met Glu Trp Asn Glu Leu Glu Leu Thr Gly Met Glu Trp
 35 40 45
 Asn Gly Met His Leu Asn
 50

<210> 98
 <211> 275
 <212> PRT
 <213> Homo sapiens

<400> 98
 Met Ser Ser Phe Gly Tyr Arg Thr Leu Thr Val Ala Leu Phe Thr Leu
 1 5 10 15
 Ile Cys Cys Pro Gly Ser Asp Glu Lys Val Phe Glu Val His Val Arg
 20 25 30
 Pro Lys Lys Leu Ala Val Glu Pro Lys Gly Ser Leu Glu Val Asn Cys
 35 40 45
 Ser Thr Thr Cys Asn Gln Pro Glu Val Gly Gly Leu Glu Thr Ser Leu
 50 55 60
 Asn Lys Ile Leu Leu Asp Glu Gln Ala Gln Trp Lys His Tyr Leu Val
 65 70 75 80
 Ser Asn Ile Ser His Asp Thr Val Leu Gln Cys His Phe Thr Cys Ser
 85 90 95
 Gly Lys Gln Glu Ser Met Asn Ser Asn Val Ser Val Tyr Gln Pro Pro
 100 105 110
 Arg Gln Val Ile Leu Thr Leu Gln Pro Thr Leu Val Ala Val Gly Lys
 115 120 125
 Ser Phe Thr Ile Glu Cys Arg Val Pro Thr Val Glu Pro Leu Asp Ser
 130 135 140
 Leu Thr Leu Phe Leu Phe Arg Gly Asn Glu Thr Leu His Tyr Glu Thr
 145 150 155 160

Phe	Gly	Lys	Ala	Ala	Pro	Ala	Pro	Gln	Glu	Ala	Thr	Ala	Thr	Phe	Asn
				165					170					175	
Ser	Thr	Ala	Asp	Arg	Glu	Asp	Gly	His	Arg	Asn	Phe	Ser	Cys	Leu	Ala
			180					185					190		
Val	Leu	Asp	Leu	Met	Ser	Arg	Gly	Gly	Asn	Ile	Phe	His	Lys	His	Ser
		195					200					205			
Ala	Pro	Lys	Met	Leu	Glu	Ile	Tyr	Glu	Pro	Val	Ser	Asp	Ser	Gln	Met
		210				215					220				
Val	Ile	Ile	Val	Thr	Val	Val	Ser	Val	Leu	Leu	Ser	Leu	Phe	Val	Thr
225					230					235					240
Ser	Val	Leu	Leu	Cys	Phe	Ile	Phe	Gly	Gln	His	Leu	Arg	Gln	Gln	Arg
			245						250					255	
Met	Gly	Thr	Tyr	Gly	Val	Arg	Ala	Ala	Trp	Arg	Arg	Leu	Pro	Gln	Ala
			260					265					270		
Phe	Arg	Pro													
		275													

<210> 99
 <211> 784
 <212> PRT
 <213> Homo sapiens

<400> 99															
Met	Gln	Arg	Leu	Met	Met	Leu	Leu	Ala	Thr	Ser	Gly	Ala	Cys	Leu	Gly
1				5					10					15	
Leu	Leu	Ala	Val	Ala	Ala	Val	Ala	Ala	Ala	Gly	Ala	Asn	Pro	Ala	Gln
			20					25					30		
Arg	Asp	Thr	His	Ser	Leu	Leu	Pro	Thr	His	Arg	Arg	Gln	Lys	Arg	Asp
		35					40					45			
Trp	Ile	Trp	Asn	Gln	Met	His	Ile	Asp	Glu	Glu	Lys	Asn	Thr	Ser	Leu
50					55						60				
Pro	His	His	Val	Gly	Lys	Ile	Lys	Ser	Ser	Val	Ser	Arg	Lys	Asn	Ala
65					70					75					80
Lys	Tyr	Leu	Leu	Lys	Gly	Glu	Tyr	Val	Gly	Lys	Val	Phe	Arg	Val	Asp
				85					90					95	
Ala	Glu	Thr	Gly	Asp	Val	Phe	Ala	Ile	Glu	Arg	Leu	Asp	Arg	Glu	Asn
			100					105					110		
Ile	Ser	Glu	Tyr	His	Leu	Thr	Ala	Val	Ile	Val	Asp	Lys	Asp	Thr	Gly
		115					120					125			
Glu	Asn	Leu	Glu	Thr	Pro	Ser	Phe	Thr	Ile	Lys	Val	His	Asp	Val	
		130				135					140				
Asn	Asp	Asn	Trp	Pro	Val	Phe	Thr	His	Arg	Leu	Phe	Asn	Ala	Ser	Val
145					150					155					160
Pro	Glu	Ser	Ser	Ala	Val	Gly	Thr	Ser	Val	Ile	Ser	Val	Thr	Ala	Val
				165					170					175	
Asp	Ala	Asp	Asp	Pro	Thr	Val	Gly	Asp	His	Ala	Ser	Val	Met	Tyr	Gln
			180					185					190		
Ile	Leu	Lys	Gly	Lys	Glu	Tyr	Phe	Ala	Ile	Asp	Asn	Ser	Gly	Arg	Ile
		195					200					205			
Ile	Thr	Ile	Thr	Lys	Ser	Leu	Asp	Arg	Glu	Lys	Gln	Ala	Arg	Tyr	Glu
		210				215					220				
Ile	Val	Val	Glu	Ala	Arg	Asp	Ala	Gln	Gly	Leu	Arg	Gly	Asp	Ser	Gly
225					230					235					240
Thr	Ala	Thr	Val	Leu	Val	Thr	Leu	Gln	Asp	Ile	Asn	Asp	Asn	Phe	Pro
				245					250					255	
Phe	Phe	Thr	Gln	Thr	Lys	Tyr	Thr	Phe	Val	Val	Pro	Glu	Asp	Thr	Arg
			260					265					270		
Val	Gly	Thr	Ser	Val	Gly	Ser	Leu	Phe	Val	Glu	Asp	Pro	Asp	Glu	Pro
		275					280					285			
Gln	Asn	Arg	Met	Thr	Lys	Tyr	Ser	Ile	Leu	Arg	Gly	Asp	Tyr	Gln	Asp
		290				295						300			

Ala	Phe	Thr	Ile	Glu	Thr	Asn	Pro	Ala	His	Asn	Glu	Gly	Ile	Ile	Lys	305	310	315	320
Pro	Met	Lys	Pro	Leu	Asp	Tyr	Glu	Tyr	Ile	Gln	Gln	Tyr	Ser	Phe	Ile				
				325					330						335				
Val	Glu	Ala	Thr	Asp	Pro	Thr	Ile	Asp	Leu	Arg	Tyr	Met	Ser	Pro	Pro				
			340					345					350						
Ala	Gly	Asn	Arg	Ala	Gln	Val	Ile	Ile	Asn	Ile	Thr	Asp	Val	Asp	Glu				
		355					360					365							
Pro	Pro	Ile	Phe	Gln	Gln	Pro	Phe	Tyr	His	Phe	Gln	Leu	Lys	Glu	Asn				
		370				375					380								
Gln	Lys	Lys	Pro	Leu	Ile	Gly	Thr	Val	Leu	Ala	Met	Asp	Pro	Asp	Ala				
				390						395					400				
Ala	Arg	His	Ser	Ile	Gly	Tyr	Ser	Ile	Arg	Arg	Thr	Ser	Asp	Lys	Gly				
				405					410						415				
Gln	Phe	Phe	Arg	Val	Thr	Lys	Lys	Gly	Asp	Ile	Tyr	Asn	Glu	Lys	Glu				
			420					425					430						
Leu	Asp	Arg	Glu	Val	Tyr	Pro	Trp	Tyr	Asn	Leu	Thr	Val	Glu	Ala	Lys				
		435					440					445							
Glu	Leu	Asp	Ser	Thr	Gly	Thr	Pro	Thr	Gly	Lys	Glu	Ser	Ile	Val	Gln				
		450				455					460								
Val	His	Ile	Glu	Val	Leu	Asp	Glu	Asn	Asp	Asn	Ala	Pro	Glu	Phe	Ala				
				470					475						480				
Lys	Pro	Tyr	Gln	Pro	Lys	Val	Cys	Glu	Asn	Ala	Val	His	Gly	Gln	Leu				
				485					490						495				
Val	Leu	Gln	Ile	Ser	Ala	Ile	Asp	Lys	Asp	Ile	Thr	Pro	Arg	Asn	Val				
			500					505					510						
Lys	Phe	Lys	Phe	Thr	Leu	Asn	Thr	Glu	Asn	Asn	Phe	Thr	Leu	Thr	Asp				
			515				520					525							
Asn	His	Asp	Asn	Thr	Ala	Asn	Ile	Thr	Val	Lys	Tyr	Gly	Gln	Phe	Asp				
						535					540								
Arg	Glu	His	Thr	Lys	Val	His	Phe	Leu	Pro	Val	Val	Ile	Ser	Asp	Asn				
					550					555					560				
Gly	Met	Pro	Ser	Arg	Thr	Gly	Thr	Ser	Thr	Leu	Thr	Val	Ala	Val	Cys				
				565					570						575				
Lys	Cys	Asn	Glu	Gln	Gly	Glu	Phe	Thr	Phe	Cys	Glu	Asp	Met	Ala	Ala				
			580					585					590						
Gln	Val	Gly	Val	Ser	Ile	Gln	Ala	Val	Val	Ala	Ile	Leu	Leu	Cys	Ile				
			595				600					605							
Leu	Thr	Ile	Thr	Val	Ile	Thr	Leu	Leu	Ile	Phe	Leu	Arg	Arg	Arg	Leu				
			610			615					620								
Arg	Lys	Gln	Ala	Arg	Ala	His	Gly	Lys	Ser	Val	Pro	Glu	Ile	His	Glu				
					630					635					640				
Gln	Leu	Val	Thr	Tyr	Asp	Glu	Glu	Gly	Gly	Gly	Glu	Met	Asp	Thr	Thr				
				645					650						655				
Ser	Tyr	Asp	Val	Ser	Val	Leu	Asn	Ser	Val	Arg	Arg	Gly	Gly	Ala	Lys				
			660					665					670						
Pro	Pro	Arg	Pro	Ala	Leu	Asp	Ala	Arg	Pro	Ser	Leu	Tyr	Ala	Gln	Val				
			675				680					685							
Gln	Lys	Pro	Pro	Arg	His	Ala	Pro	Gly	Ala	His	Gly	Gly	Pro	Gly	Glu				
			690			695					700								
Met	Ala	Ala	Met	Ile	Glu	Val	Lys	Lys	Asp	Glu	Ala	Asp	His	Asp	Gly				
					710				715						720				
Asp	Gly	Pro	Pro	Tyr	Asp	Thr	Leu	His	Ile	Tyr	Gly	Tyr	Glu	Gly	Ser				
				725					730						735				
Glu	Ser	Ile	Ala	Glu	Ser	Leu	Ser	Ser	Leu	Gly	Thr	Asp	Ser	Ser	Asp				
			740					745					750						
Ser	Asp	Val	Asp	Tyr	Asp	Phe	Leu	Asn	Asp	Trp	Gly	Pro	Arg	Phe	Lys				
			755				760					765							
Met	Leu	Ala	Glu	Leu	Tyr	Gly	Ser	Asp	Pro	Arg	Glu	Glu	Leu	Leu	Tyr				
			770			775					780								

<210> 100
 <211> 774
 <212> PRT
 <213> Homo sapiens

<400> 100

Met	Glu	Arg	Pro	Leu	Cys	Ser	His	Leu	Cys	Ser	Cys	Leu	Ala	Met	Leu
1				5					10					15	
Ala	Leu	Leu	Ser	Pro	Leu	Ser	Leu	Ala	Gln	Tyr	Asp	Ser	Trp	Pro	His
			20					25					30		
Tyr	Pro	Glu	Tyr	Phe	Gln	Gln	Pro	Ala	Pro	Glu	Tyr	His	Gln	Pro	Gln
		35					40					45			
Ala	Pro	Ala	Asn	Val	Ala	Lys	Ile	Gln	Leu	Arg	Leu	Ala	Gly	Gln	Lys
	50					55					60				
Arg	Lys	His	Ser	Glu	Gly	Arg	Val	Glu	Val	Tyr	Tyr	Asp	Gly	Gln	Trp
65					70					75					80
Gly	Thr	Val	Cys	Asp	Asp	Asp	Phe	Ser	Ile	His	Ala	Ala	His	Val	Val
				85					90					95	
Cys	Arg	Glu	Leu	Gly	Tyr	Val	Glu	Ala	Lys	Ser	Trp	Thr	Ala	Ser	Ser
			100					105					110		
Ser	Tyr	Gly	Lys	Gly	Glu	Gly	Pro	Ile	Trp	Leu	Asp	Asn	Leu	His	Cys
		115					120					125			
Thr	Gly	Asn	Glu	Ala	Thr	Leu	Ala	Ala	Cys	Thr	Ser	Asn	Gly	Trp	Gly
	130					135						140			
Val	Thr	Asp	Cys	Lys	His	Thr	Glu	Asp	Val	Gly	Val	Val	Cys	Ser	Asp
145					150					155					160
Lys	Arg	Ile	Pro	Gly	Phe	Lys	Phe	Asp	Asn	Ser	Leu	Ile	Asn	Gln	Ile
				165					170					175	
Glu	Asn	Leu	Asn	Ile	Gln	Val	Glu	Asp	Ile	Arg	Ile	Arg	Ala	Ile	Leu
			180					185					190		
Ser	Thr	Tyr	Arg	Lys	Arg	Thr	Pro	Val	Met	Glu	Gly	Tyr	Val	Glu	Val
		195					200					205			
Lys	Glu	Gly	Lys	Thr	Trp	Lys	Gln	Ile	Cys	Asp	Lys	His	Trp	Thr	Ala
	210					215					220				
Lys	Asn	Ser	Arg	Val	Val	Cys	Gly	Met	Phe	Gly	Phe	Pro	Gly	Glu	Arg
225					230					235					240
Thr	Tyr	Asn	Thr	Lys	Val	Tyr	Lys	Met	Phe	Ala	Ser	Arg	Arg	Lys	Gln
				245					250					255	
Arg	Tyr	Trp	Pro	Phe	Ser	Met	Asp	Cys	Thr	Gly	Thr	Glu	Ala	His	Ile
			260					265					270		
Ser	Ser	Cys	Lys	Leu	Gly	Pro	Gln	Val	Ser	Leu	Asp	Pro	Met	Lys	Asn
		275					280					285			
Val	Thr	Cys	Glu	Asn	Gly	Leu	Pro	Ala	Val	Val	Ser	Cys	Val	Pro	Gly
	290					295					300				
Gln	Val	Phe	Ser	Pro	Asp	Gly	Pro	Ser	Arg	Phe	Arg	Lys	Ala	Tyr	Lys
305					310					315					320
Pro	Glu	Gln	Pro	Leu	Val	Arg	Leu	Arg	Gly	Gly	Ala	Tyr	Ile	Gly	Glu
				325					330					335	
Gly	Arg	Val	Glu	Val	Leu	Lys	Asn	Gly	Glu	Trp	Gly	Thr	Val	Cys	Asp
			340					345					350		
Asp	Lys	Trp	Asp	Leu	Val	Ser	Ala	Ser	Val	Val	Cys	Arg	Glu	Leu	Gly
		355					360					365			
Phe	Gly	Ser	Ala	Lys	Glu	Ala	Val	Thr	Gly	Ser	Arg	Leu	Gly	Gln	Gly
	370					375					380				
Ile	Gly	Pro	Ile	His	Leu	Asn	Glu	Ile	Gln	Cys	Thr	Gly	Asn	Glu	Lys
385					390					395					400
Ser	Ile	Ile	Asp	Cys	Lys	Phe	Asn	Ala	Glu	Ser	Gln	Gly	Cys	Asn	His
				405					410					415	
Glu	Glu	Asp	Ala	Gly	Val	Arg	Cys	Asn	Thr	Pro	Ala	Met	Gly	Leu	Gln
			420					425					430		

Lys Lys Leu Arg Leu Asn Gly Gly Arg Asn Pro Tyr Glu Gly Arg Val
 435 440 445
 Glu Val Leu Val Glu Arg Asn Gly Ser Leu Val Trp Gly Met Val Cys
 450 455 460
 Gly Gln Asn Trp Gly Ile Val Glu Ala Met Val Val Cys Arg Gln Leu
 465 470 475 480
 Gly Leu Gly Phe Ala Ser Asn Ala Phe Gln Glu Thr Trp Tyr Trp His
 485 490 495
 Gly Asp Val Asn Ser Asn Lys Val Val Met Ser Gly Val Lys Cys Ser
 500 505 510
 Gly Thr Glu Leu Ser Leu Ala His Cys Arg His Asp Gly Glu Asp Val
 515 520 525
 Ala Cys Pro Gln Gly Gly Val Gln Tyr Gly Ala Gly Val Ala Cys Ser
 530 535 540
 Glu Thr Ala Pro Asp Leu Val Leu Asn Ala Glu Met Val Gln Gln Thr
 545 550 555 560
 Thr Tyr Leu Glu Asp Arg Pro Met Phe Met Leu Gln Cys Ala Met Glu
 565 570 575
 Glu Asn Cys Leu Ser Ala Ser Ala Ala Gln Thr Asp Pro Thr Thr Gly
 580 585 590
 Tyr Arg Arg Leu Leu Arg Phe Ser Ser Gln Ile His Asn Asn Gly Gln
 595 600 605
 Ser Asp Phe Arg Pro Lys Asn Gly Arg His Ala Trp Ile Trp His Asp
 610 615 620
 Cys His Arg His Tyr His Ser Met Glu Val Phe Thr His Tyr Asp Leu
 625 630 635 640
 Leu Asn Leu Asn Gly Thr Lys Val Ala Glu Gly His Lys Ala Ser Phe
 645 650 655
 Cys Leu Glu Asp Thr Glu Cys Glu Gly Asp Ile Gln Lys Asn Tyr Glu
 660 665 670
 Cys Ala Asn Phe Gly Asp Gln Gly Ile Thr Met Gly Cys Trp Asp Met
 675 680 685
 Tyr Arg His Asp Ile Asp Cys Gln Trp Val Asp Ile Thr Asp Val Pro
 690 695 700
 Pro Gly Asp Tyr Leu Phe Gln Val Val Ile Asn Pro Asn Phe Glu Val
 705 710 715 720
 Ala Glu Ser Asp Tyr Ser Asn Asn Ile Met Lys Cys Arg Ser Arg Tyr
 725 730 735
 Asp Gly His Arg Ile Trp Met Tyr Asn Cys His Ile Gly Gly Ser Phe
 740 745 750
 Ser Glu Glu Thr Glu Lys Lys Phe Glu His Phe Ser Gly Leu Leu Asn
 755 760 765
 Asn Gln Leu Ser Pro Gln
 770

<210> 101
 <211> 1138
 <212> PRT
 <213> Homo sapiens

<400> 101
 Met Val Trp Arg Val Pro Pro Phe Leu Leu Pro Ile Leu Phe Leu Ala
 1 5 10 15
 Ser His Val Gly Ala Ala Val Asp Leu Thr Leu Leu Ala Asn Leu Arg
 20 25 30
 Leu Thr Asp Pro Gln Arg Phe Phe Leu Thr Cys Val Ser Gly Glu Ala
 35 40 45
 Gly Ala Gly Arg Gly Ser Asp Ala Trp Gly Pro Pro Leu Leu Glu
 50 55 60
 Lys Asp Asp Arg Ile Val Arg Thr Pro Pro Gly Pro Pro Leu Arg Leu
 65 70 75 80

Ala	Arg	Asn	Gly	Ser	His	Gln	Val	Thr	Leu	Arg	Gly	Phe	Ser	Lys	Pro	85	90	95
Ser	Asp	Leu	Val	Gly	Val	Phe	Ser	Cys	Val	Gly	Gly	Ala	Gly	Ala	Arg	100	105	110
Arg	Thr	Arg	Val	Ile	Tyr	Val	His	Asn	Ser	Pro	Gly	Ala	His	Leu	Leu	115	120	125
Pro	Asp	Lys	Val	Thr	His	Thr	Val	Asn	Lys	Gly	Asp	Thr	Ala	Val	Leu	130	135	140
Ser	Ala	Arg	Val	His	Lys	Glu	Lys	Gln	Thr	Asp	Val	Ile	Trp	Lys	Ser	145	150	155
Asn	Gly	Ser	Tyr	Phe	Tyr	Thr	Leu	Asp	Trp	His	Glu	Ala	Gln	Asp	Gly	165	170	175
Arg	Phe	Leu	Leu	Gln	Leu	Pro	Asn	Val	Gln	Pro	Pro	Ser	Ser	Gly	Ile	180	185	190
Tyr	Ser	Ala	Thr	Tyr	Leu	Glu	Ala	Ser	Pro	Leu	Gly	Ser	Ala	Phe	Phe	195	200	205
Arg	Leu	Ile	Val	Arg	Gly	Cys	Gly	Ala	Gly	Arg	Trp	Gly	Pro	Gly	Cys	210	215	220
Thr	Lys	Glu	Cys	Pro	Gly	Cys	Leu	His	Gly	Gly	Val	Cys	His	Asp	His	225	230	235
Asp	Gly	Glu	Cys	Val	Cys	Pro	Pro	Gly	Phe	Thr	Gly	Thr	Arg	Cys	Glu	245	250	255
Gln	Ala	Cys	Arg	Glu	Gly	Arg	Phe	Gly	Gln	Ser	Cys	Gln	Glu	Gln	Cys	260	265	270
Pro	Gly	Ile	Ser	Gly	Cys	Arg	Gly	Leu	Thr	Phe	Cys	Leu	Pro	Asp	Pro	275	280	285
Tyr	Gly	Cys	Ser	Cys	Gly	Ser	Gly	Trp	Arg	Gly	Ser	Gln	Cys	Gln	Glu	290	295	300
Ala	Cys	Ala	Pro	Gly	His	Phe	Gly	Ala	Asp	Cys	Arg	Leu	Gln	Cys	Gln	305	310	315
Cys	Gln	Asn	Gly	Gly	Thr	Cys	Asp	Arg	Phe	Ser	Gly	Cys	Val	Cys	Pro	325	330	335
Ser	Gly	Trp	His	Gly	Val	His	Cys	Glu	Lys	Ser	Asp	Arg	Ile	Pro	Gln	340	345	350
Ile	Leu	Asn	Met	Ala	Ser	Glu	Leu	Glu	Phe	Asn	Leu	Glu	Thr	Met	Pro	355	360	365
Arg	Ile	Asn	Cys	Ala	Ala	Ala	Gly	Asn	Pro	Phe	Pro	Val	Arg	Gly	Ser	370	375	380
Ile	Glu	Leu	Arg	Lys	Pro	Asp	Gly	Thr	Val	Leu	Leu	Ser	Thr	Lys	Ala	385	390	395
Ile	Val	Glu	Pro	Glu	Lys	Thr	Thr	Ala	Glu	Phe	Glu	Val	Pro	Arg	Leu	405	410	415
Val	Leu	Ala	Asp	Ser	Gly	Phe	Trp	Glu	Cys	Arg	Val	Ser	Thr	Ser	Gly	420	425	430
Gly	Gln	Asp	Ser	Arg	Arg	Phe	Lys	Val	Asn	Val	Lys	Val	Pro	Pro	Val	435	440	445
Pro	Leu	Ala	Ala	Pro	Arg	Leu	Leu	Thr	Lys	Gln	Ser	Arg	Gln	Leu	Val	450	455	460
Val	Ser	Pro	Leu	Val	Ser	Phe	Ser	Gly	Asp	Gly	Pro	Ile	Ser	Thr	Val	465	470	475
Arg	Leu	His	Tyr	Arg	Pro	Gln	Asp	Ser	Thr	Met	Asp	Trp	Ser	Thr	Ile	485	490	495
Val	Val	Asp	Pro	Ser	Glu	Asn	Val	Thr	Leu	Met	Asn	Leu	Arg	Pro	Lys	500	505	510
Thr	Gly	Tyr	Ser	Val	Arg	Val	Gln	Leu	Ser	Arg	Pro	Gly	Glu	Gly	Gly	515	520	525
Glu	Gly	Ala	Trp	Gly	Pro	Pro	Thr	Leu	Met	Thr	Thr	Asp	Cys	Pro	Glu	530	535	540
Pro	Leu	Leu	Gln	Pro	Trp	Leu	Glu	Gly	Trp	His	Val	Glu	Gly	Thr	Asp	545	550	555

Arg	Leu	Arg	Val	Ser	Trp	Ser	Leu	Pro	Leu	Val	Pro	Gly	Pro	Leu	Val	
				565					570					575		
Gly	Asp	Gly	Phe	Leu	Leu	Arg	Leu	Trp	Asp	Gly	Thr	Arg	Gly	Gln	Glu	
			580					585					590			
Arg	Arg	Glu	Asn	Val	Ser	Ser	Pro	Gln	Ala	Arg	Thr	Ala	Leu	Leu	Thr	
		595					600					605				
Gly	Leu	Thr	Pro	Gly	Thr	His	Tyr	Gln	Leu	Asp	Val	Gln	Leu	Tyr	His	
	610					615					620					
Cys	Thr	Leu	Leu	Gly	Pro	Ala	Ser	Pro	Pro	Ala	His	Val	Leu	Leu	Pro	
625					630					635					640	
Pro	Ser	Gly	Pro	Pro	Ala	Pro	Arg	His	Leu	His	Ala	Gln	Ala	Leu	Ser	
				645					650					655		
Asp	Ser	Glu	Ile	Gln	Leu	Thr	Trp	Lys	His	Pro	Glu	Ala	Leu	Pro	Gly	
			660					665					670			
Pro	Ile	Ser	Lys	Tyr	Val	Val	Glu	Val	Gln	Val	Ala	Gly	Gly	Ala	Gly	
	675						680					685				
Asp	Pro	Leu	Trp	Ile	Asp	Val	Asp	Arg	Pro	Glu	Glu	Thr	Ser	Thr	Ile	
	690				695						700					
Ile	Arg	Gly	Leu	Asn	Ala	Ser	Thr	Arg	Tyr	Leu	Phe	Arg	Met	Arg	Ala	
705					710					715					720	
Ser	Ile	Gln	Gly	Leu	Gly	Asp	Trp	Ser	Asn	Thr	Val	Glu	Glu	Ser	Thr	
				725					730					735		
Leu	Gly	Asn	Gly	Leu	Gln	Ala	Glu	Gly	Pro	Val	Gln	Glu	Ser	Arg	Ala	
		740					745						750			
Ala	Glu	Glu	Gly	Leu	Asp	Gln	Gln	Leu	Ile	Leu	Ala	Val	Val	Gly	Ser	
	755						760					765				
Val	Ser	Ala	Thr	Cys	Leu	Thr	Ile	Leu	Ala	Ala	Leu	Leu	Thr	Leu	Val	
	770					775					780					
Cys	Ile	Arg	Arg	Ser	Cys	Leu	His	Arg	Arg	Arg	Thr	Phe	Thr	Tyr	Gln	
785					790					795					800	
Ser	Gly	Ser	Gly	Glu	Glu	Thr	Ile	Leu	Gln	Phe	Ser	Ser	Gly	Thr	Leu	
				805					810					815		
Thr	Leu	Thr	Arg	Arg	Pro	Lys	Leu	Gln	Pro	Glu	Pro	Leu	Ser	Tyr	Pro	
			820					825					830			
Val	Leu	Glu	Trp	Glu	Asp	Ile	Thr	Phe	Glu	Asp	Leu	Ile	Gly	Glu	Gly	
	835						840					845				
Asn	Phe	Gly	Gln	Val	Ile	Arg	Ala	Met	Ile	Lys	Lys	Asp	Gly	Leu	Lys	
	850					855					860					
Met	Asn	Ala	Ala	Ile	Lys	Met	Leu	Lys	Glu	Tyr	Ala	Ser	Glu	Asn	Asp	
865					870					875					880	
His	Arg	Asp	Phe	Ala	Gly	Glu	Leu	Glu	Val	Leu	Cys	Lys	Leu	Gly	His	
				885					890					895		
His	Pro	Asn	Ile	Ile	Asn	Leu	Leu	Gly	Ala	Cys	Lys	Asn	Arg	Gly	Tyr	
		900						905					910			
Leu	Tyr	Ile	Ala	Ile	Glu	Tyr	Ala	Pro	Tyr	Gly	Asn	Leu	Leu	Asp	Phe	
	915						920					925				
Leu	Arg	Lys	Ser	Arg	Val	Leu	Glu	Thr	Asp	Pro	Ala	Phe	Ala	Arg	Glu	
	930					935					940					
His	Gly	Thr	Ala	Ser	Thr	Leu	Ser	Ser	Arg	Gln	Leu	Leu	Arg	Phe	Ala	
945					950					955					960	
Ser	Asp	Ala	Ala	Asn	Gly	Met	Gln	Tyr	Leu	Ser	Glu	Lys	Gln	Phe	Ile	
				965					970					975		
His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Val	Leu	Val	Gly	Glu	Asn	Leu	Ala	
			980					985					990			
Ser	Lys	Ile	Ala	Asp	Phe	Gly	Leu	Ser	Arg	Gly	Glu	Glu	Val	Tyr	Val	
	995						1000					1005				
Lys	Lys	Thr	Met	Gly	Arg	Leu	Pro	Val	Arg	Trp	Met	Ala	Ile	Glu	Ser	
	1010					1015					1020					
Leu	Asn	Tyr	Ser	Val	Tyr	Thr	Thr	Lys	Ser	Asp	Val	Trp	Ser	Phe	Gly	
1025					1030					1035					1040	

Val Leu Leu Trp Glu Ile Val Ser Leu Gly Gly Thr Pro Tyr Cys Gly
1045 1050 1055
Met Thr Cys Ala Glu Leu Tyr Glu Lys Leu Pro Gln Gly Tyr Arg Met
1060 1065 1070
Glu Gln Pro Arg Asn Cys Asp Asp Glu Val Tyr Glu Leu Met Arg Gln
1075 1080 1085
Cys Trp Arg Asp Arg Pro Tyr Glu Arg Pro Pro Phe Ala Gln Ile Ala
1090 1095 1100
Leu Gln Leu Gly Arg Met Leu Glu Ala Arg Lys Ala Tyr Val Asn Met
1105 1110 1115 1120
Ser Leu Phe Glu Asn Phe Thr Tyr Ala Gly Ile Asp Ala Thr Ala Glu
1125 1130 1135
Glu Ala

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<211> 149
<212> PRT
<213> Homo sapiens

<400> 102
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Leu Ala Leu Pro Ala Val Pro Pro Gln Gln Trp Ala Leu Ser Ala Gly
20 25 30
Asn Gly Ser Ser Glu Val Glu Val Val Pro Phe Gln Glu Val Trp Gly
35 40 45
Arg Ser Tyr Cys Arg Ala Leu Glu Arg Leu Val Asp Val Val Ser Glu
50 55 60
Tyr Pro Ser Glu Val Glu His Met Phe Ser Pro Ser Cys Val Ser Leu
65 70 75 80
Leu Arg Cys Thr Gly Cys Cys Gly Asp Glu Asn Leu His Cys Val Pro
85 90 95
Val Glu Thr Ala Asn Val Thr Met Gln Leu Leu Lys Ile Arg Ser Gly
100 105 110
Asp Arg Pro Ser Tyr Val Glu Leu Thr Phe Ser Gln His Val Arg Cys
115 120 125
Glu Cys Arg Pro Leu Arg Glu Lys Met Lys Pro Glu Arg Cys Gly Asp
130 135 140
Ala Val Pro Arg Arg
145

<210> 103
<211> 1376
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<213> Homo sapiens

<400> 103
Met Glu Gly Asp Arg Val Ala Gly Arg Pro Val Leu Ser Ser Leu Pro
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Val Leu Leu Leu Leu Gln Leu Leu Met Leu Arg Ala Ala Ala Leu His
20 25 30
Pro Asp Glu Leu Phe Pro His Gly Glu Ser Trp Trp Asp Gln Leu Leu
35 40 45
Gln Glu Gly Asp Asp Val Lys Leu Ser Arg Gly Glu Ala Gly Glu Ser
50 55 60
Pro Ala Leu Leu Thr Lys Pro Asp Ser Ala Thr Ser Thr Trp Ala Pro
65 70 75 80
Thr Ala Ser Ser Pro Leu Arg Thr Ser Pro Gly Lys Arg Ser Met Trp
85 90 95

Thr	Met	Ile	Ser	Pro	Pro	Thr	Ser	Arg	Pro	Ser	Pro	Leu	Phe	Trp	Arg		
			100					105					110				
Thr	Ser	Thr	Arg	Ala	Thr	Ala	Glu	Ala	Glu	Ser	Cys	Thr	Glu	Arg	Thr		
		115					120					125					
Pro	Pro	Pro	Gln	Cys	Trp	Ala	Trp	Pro	Pro	Ala	Met	Cys	Ala	Leu	Ala		
		130				135					140						
Ser	Arg	Ala	Leu	Arg	Ala	Phe	Tyr	Pro	His	Pro	Arg	Leu	Pro	Gly	His		
145				150						155					160		
Leu	Gly	Ala	Gly	Arg	Arg	Leu	Arg	Gly	Gly	Gln	Thr	Arg	Ala	Leu	Pro		
			165						170					175			
Ser	Gly	Glu	Leu	Asn	Thr	Phe	Gln	Ala	Val	Leu	Ala	Ser	Asp	Gly	Ser		
		180					185						190				
Asp	Ser	Tyr	Ala	Leu	Phe	Leu	Tyr	Pro	Ala	Asn	Gly	Leu	Gln	Phe	Leu		
		195					200					205					
Gly	Thr	Arg	Pro	Lys	Glu	Ser	Tyr	Asn	Val	Gln	Leu	Gln	Leu	Pro	Ala		
	210				215						220						
Arg	Val	Gly	Phe	Cys	Arg	Gly	Glu	Ala	Asp	Asp	Leu	Lys	Ser	Glu	Gly		
225				230					235						240		
Pro	Tyr	Phe	Ser	Leu	Thr	Ser	Thr	Glu	Gln	Ser	Val	Lys	Asn	Leu	Tyr		
			245					250						255			
Gln	Leu	Ser	Asn	Leu	Gly	Ile	Pro	Gly	Val	Trp	Ala	Phe	His	Ile	Gly		
		260					265						270				
Ser	Thr	Ser	Pro	Leu	Asp	Asn	Val	Arg	Pro	Ala	Ala	Val	Gly	Asp	Leu		
		275					280					285					
Ser	Ala	Ala	His	Ser	Ser	Val	Pro	Leu	Gly	Arg	Ser	Phe	Ser	His	Ala		
	290					295					300						
Thr	Ala	Leu	Glu	Ser	Asp	Tyr	Asn	Glu	Asp	Asn	Leu	Asp	Tyr	Tyr	Asp		
305				310					315						320		
Val	Asn	Glu	Glu	Glu	Ala	Glu	Tyr	Leu	Pro	Gly	Glu	Pro	Glu	Glu	Ala		
			325					330						335			
Leu	Asn	Gly	His	Ser	Ser	Ile	Asp	Val	Ser	Phe	Gln	Ser	Lys	Val	Asp		
		340					345						350				
Thr	Lys	Pro	Leu	Glu	Glu	Ser	Ser	Thr	Leu	Asp	Pro	His	Thr	Lys	Glu		
	355					360						365					
Gly	Thr	Ser	Leu	Gly	Glu	Val	Gly	Gly	Pro	Asp	Leu	Lys	Gly	Gln	Val		
	370				375						380						
Glu	Pro	Trp	Asp	Glu	Arg	Glu	Thr	Arg	Ser	Pro	Ala	Pro	Pro	Glu	Val		
385				390					395						400		
Asp	Arg	Asp	Ser	Leu	Ala	Pro	Ser	Trp	Glu	Thr	Pro	Pro	Pro	Tyr	Pro		
			405					410						415			
Glu	Asn	Gly	Ser	Ile	Gln	Pro	Tyr	Pro	Asp	Gly	Gly	Pro	Val	Pro	Ser		
		420						425					430				
Glu	Met	Asp	Val	Pro	Pro	Ala	His	Pro	Glu	Glu	Glu	Ile	Val	Leu	Arg		
	435					440						445					
Ser	Tyr	Pro	Ala	Ser	Gly	His	Thr	Thr	Pro	Leu	Ser	Arg	Gly	Thr	Tyr		
	450				455						460						
Glu	Val	Gly	Leu	Glu	Asp	Asn	Ile	Gly	Ser	Asn	Thr	Glu	Val	Phe	Thr		
465				470					475						480		
Tyr	Asn	Ala	Ala	Asn	Lys	Glu	Thr	Cys	Glu	His	Asn	His	Arg	Gln	Cys		
			485					490						495			
Ser	Arg	His	Ala	Phe	Cys	Thr	Asp	Tyr	Ala	Thr	Gly	Phe	Cys	Cys	His		
		500					505					510					
Cys	Gln	Ser	Lys	Phe	Tyr	Gly	Asn	Gly	Lys	His	Cys	Leu	Pro	Glu	Gly		
	515					520					525						
Ala	Pro	His	Arg	Val	Asn	Gly	Lys	Val	Ser	Gly	His	Leu	His	Val	Gly		
	530				535						540						
His	Thr	Pro	Val	His	Phe	Thr	Asp	Val	Asp	Leu	His	Ala	Tyr	Ile	Val		
545				550					555						560		
Gly	Asn	Asp	Gly	Arg	Ala	Tyr	Thr	Ala	Ile	Ser	His	Ile	Pro	Gln	Pro		
			565					570						575			

Ala	Ala	Gln	Ala	Leu	Leu	Pro	Leu	Thr	Pro	Ile	Gly	Gly	Leu	Phe	Gly		
			580					585					590				
Trp	Leu	Phe	Ala	Leu	Glu	Lys	Pro	Gly	Ser	Glu	Asn	Gly	Phe	Ser	Leu		
		595					600					605					
Ala	Gly	Ala	Ala	Phe	Thr	His	Asp	Met	Glu	Val	Thr	Phe	Tyr	Pro	Gly		
	610					615					620						
Glu	Glu	Thr	Val	Arg	Ile	Thr	Gln	Thr	Ala	Glu	Gly	Leu	Asp	Pro	Glu		
625					630					635					640		
Asn	Tyr	Leu	Ser	Ile	Lys	Thr	Asn	Ile	Gln	Gly	Gln	Val	Pro	Tyr	Val		
				645					650					655			
Pro	Ala	Asn	Phe	Thr	Ala	His	Ile	Ser	Pro	Tyr	Lys	Glu	Leu	Tyr	His		
		660						665					670				
Tyr	Ser	Asp	Ser	Thr	Val	Thr	Ser	Thr	Ser	Ser	Arg	Asp	Tyr	Ser	Leu		
		675					680					685					
Thr	Phe	Gly	Ala	Ile	Asn	Gln	Thr	Trp	Ser	Tyr	Arg	Ile	His	Gln	Asn		
	690					695					700						
Ile	Thr	Tyr	Gln	Val	Cys	Arg	His	Ala	Pro	Arg	His	Pro	Ser	Phe	Pro		
705					710					715					720		
Thr	Thr	Gln	Gln	Leu	Asn	Val	Asp	Arg	Val	Phe	Ala	Leu	Tyr	Asn	Asp		
				725					730					735			
Glu	Glu	Arg	Val	Leu	Arg	Phe	Ala	Val	Thr	Asn	Gln	Ile	Gly	Pro	Val		
			740					745					750				
Lys	Glu	Asp	Ser	Asp	Pro	Thr	Pro	Val	Asn	Pro	Cys	Tyr	Asp	Gly	Ser		
		755					760					765					
His	Met	Cys	Asp	Thr	Thr	Ala	Arg	Cys	His	Pro	Gly	Thr	Gly	Val	Asp		
	770					775					780						
Tyr	Thr	Cys	Glu	Cys	Ala	Ser	Gly	Tyr	Gln	Gly	Asp	Gly	Arg	Asn	Cys		
785					790					795					800		
Val	Asp	Glu	Asn	Glu	Cys	Ala	Thr	Gly	Phe	His	Arg	Cys	Gly	Pro	Asn		
				805					810					815			
Ser	Val	Cys	Ile	Asn	Leu	Pro	Gly	Ser	Tyr	Arg	Cys	Glu	Cys	Arg	Ser		
			820					825					830				
Gly	Tyr	Glu	Phe	Ala	Asp	Asp	Arg	His	Thr	Cys	Ile	Leu	Ile	Thr	Pro		
		835					840					845					
Pro	Ala	Asn	Pro	Cys	Glu	Asp	Gly	Ser	His	Thr	Cys	Ala	Pro	Ala	Gly		
		850				855					860						
Gln	Ala	Arg	Cys	Val	His	His	Gly	Gly	Ser	Thr	Phe	Ser	Cys	Ala	Cys		
865					870					875					880		
Leu	Pro	Gly	Tyr	Ala	Gly	Asp	Gly	His	Gln	Cys	Thr	Asp	Val	Asp	Glu		
				885					890					895			
Cys	Ser	Glu	Asn	Arg	Cys	His	Pro	Ala	Ala	Thr	Cys	Tyr	Asn	Thr	Pro		
			900					905					910				
Gly	Ser	Phe	Ser	Cys	Arg	Cys	Gln	Pro	Gly	Tyr	Tyr	Gly	Asp	Gly	Phe		
		915					920					925					
Gln	Cys	Ile	Pro	Asp	Ser	Thr	Ser	Ser	Leu	Thr	Pro	Cys	Glu	Gln	Gln		
		930				935					940						
Gln	Arg	His	Ala	Gln	Ala	Gln	Tyr	Ala	Tyr	Pro	Gly	Ala	Arg	Phe	His		
945					950					955					960		
Ile	Pro	Gln	Cys	Asp	Glu	Gln	Gly	Asn	Phe	Leu	Pro	Leu	Gln	Cys	His		
				965					970					975			
Gly	Ser	Thr	Gly	Phe	Cys	Trp	Cys	Val	Asp	Pro	Asp	Gly	His	Glu	Val		
			980					985					990				
Pro	Gly	Thr	Gln	Thr	Pro	Pro	Gly	Ser	Thr	Pro	Pro	His	Cys	Gly	Pro		
		995					1000					1005					
Ser	Pro	Glu	Pro	Thr	Gln	Arg	Pro	Pro	Thr	Ile	Cys	Glu	Arg	Trp	Arg		
		1010				1015					1020						
Glu	Asn	Leu	Leu	Glu	His	Tyr	Gly	Gly	Thr	Pro	Arg	Asp	Asp	Gln	Tyr		
1025					1030					1035					1040		
Val	Pro	Gln	Cys	Asp	Asp	Leu	Gly	His	Phe	Ile	Pro	Leu	Gln	Cys	His		
				1045					1050					1055			

Gly Lys Ser Asp Phe Cys Trp Cys Val Asp Lys Asp Gly Arg Glu Val
 1060 1065 1070
 Gln Gly Thr Arg Ser Gln Pro Gly Thr Thr Pro Ala Cys Ile Pro Thr
 1075 1080 1085
 Val Ala Pro Pro Met Val Arg Pro Thr Pro Arg Pro Asp Val Thr Pro
 1090 1095 1100
 Pro Ser Val Gly Thr Phe Leu Leu Tyr Thr Gln Gly Gln Gln Ile Gly
 1105 1110 1115 1120
 Tyr Leu Pro Leu Asn Gly Thr Arg Leu Gln Lys Asp Ala Ala Lys Thr
 1125 1130 1135
 Leu Leu Ser Leu His Gly Ser Ile Ile Val Gly Ile Asp Tyr Asp Cys
 1140 1145 1150
 Arg Glu Arg Met Val Tyr Trp Thr Asp Val Ala Gly Arg Thr Ile Ser
 1155 1160 1165
 Arg Ala Gly Leu Glu Leu Gly Ala Glu Pro Glu Thr Ile Val Asn Ser
 1170 1175 1180
 Gly Leu Ile Ser Pro Glu Gly Leu Ala Ile Asp His Ile Arg Arg Thr
 1185 1190 1195 1200
 Met Tyr Trp Thr Asp Ser Val Leu Asp Lys Ile Glu Ser Ala Leu Leu
 1205 1210 1215
 Asp Gly Ser Glu Arg Lys Val Leu Phe Tyr Thr Asp Leu Val Asn Pro
 1220 1225 1230
 Arg Ala Ile Ala Val Asp Pro Ile Arg Gly Asn Leu Tyr Trp Thr Asp
 1235 1240 1245
 Trp Asn Arg Glu Ala Pro Lys Ile Glu Thr Ser Ser Leu Asp Gly Glu
 1250 1255 1260
 Asn Arg Arg Ile Leu Ile Asn Thr Asp Ile Gly Leu Pro Asn Gly Leu
 1265 1270 1275 1280
 Thr Phe Asp Pro Phe Ser Lys Leu Leu Cys Trp Ala Asp Ala Gly Thr
 1285 1290 1295
 Lys Lys Leu Glu Cys Thr Leu Pro Asp Gly Thr Gly Arg Arg Val Ile
 1300 1305 1310
 Gln Asn Asn Leu Lys Tyr Pro Phe Ser Ile Val Ser Tyr Ala Asp His
 1315 1320 1325
 Phe Tyr His Thr Asp Trp Arg Arg Asp Gly Val Val Ser Val Asn Lys
 1330 1335 1340
 His Ser Gly Gln Phe Thr Asp Glu Tyr Leu Pro Glu Gln Arg Ser His
 1345 1350 1355 1360
 Leu Tyr Gly Ile Thr Ala Val Tyr Pro Tyr Cys Pro Thr Gly Arg Lys
 1365 1370 1375

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 <212> PRT
 <213> Homo sapiens

<400> 104
 Met Thr Ala Asn Gly Thr Ala Glu Ala Val Gln Ile Gln Phe Gly Leu
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 Ile Asn Cys Gly Asn Lys Tyr Leu Thr Ala Glu Ala Phe Gly Phe Lys
 20 25 30
 Val Asn Ala Ser Ala Ser Ser Leu Lys Lys Lys Gln Ile Trp Thr Leu
 35 40 45
 Glu Gln Pro Pro Asp Glu Ala Gly Ser Ala Ala Val Cys Leu Arg Ser
 50 55 60
 His Leu Gly Arg Tyr Leu Ala Ala Asp Lys Asp Gly Asn Val Thr Cys
 65 70 75 80
 Glu Arg Glu Val Pro Gly Pro Asp Cys Arg Phe Leu Ile Val Ala His
 85 90 95
 Asp Asp Gly Arg Trp Ser Leu Gln Ser Glu Ala His Arg Arg Tyr Phe
 100 105 110

Gly	Gly	Thr	Glu	Asp	Arg	Leu	Ser	Cys	Phe	Ala	Gln	Thr	Val	Ser	Pro	
		115					120					125				
Ala	Glu	Lys	Trp	Ser	Val	His	Ile	Ala	Met	His	Pro	Gln	Val	Asn	Ile	
	130					135					140					
Tyr	Ser	Val	Thr	Arg	Lys	Arg	Tyr	Ala	His	Leu	Ser	Ala	Arg	Pro	Ala	
145					150					155					160	
Asp	Glu	Ile	Ala	Val	Asp	Arg	Asp	Val	Pro	Trp	Gly	Val	Asp	Ser	Leu	
				165					170					175		
Ile	Thr	Leu	Ala	Phe	Gln	Asp	Gln	Arg	Tyr	Ser	Val	Gln	Thr	Ala	Asp	
			180					185					190			
His	Arg	Phe	Leu	Arg	His	Asp	Gly	Arg	Leu	Val	Ala	Arg	Pro	Glu	Pro	
		195					200					205				
Ala	Thr	Gly	Tyr	Thr	Leu	Glu	Phe	Arg	Ser	Gly	Lys	Val	Ala	Phe	Arg	
	210					215					220					
Asp	Cys	Glu	Gly	Arg	Tyr	Leu	Ala	Pro	Ser	Gly	Pro	Ser	Gly	Thr	Leu	
225					230					235					240	
Lys	Ala	Gly	Lys	Ala	Thr	Lys	Val	Gly	Lys	Asp	Glu	Leu	Phe	Ala	Leu	
				245						250				255		
Glu	Gln	Ser	Cys	Ala	Gln	Val	Val	Leu	Gln	Ala	Ala	Asn	Glu	Arg	Asn	
			260					265					270			
Val	Ser	Thr	Arg	Gln	Gly	Met	Asp	Leu	Ser	Ala	Asn	Gln	Asp	Glu	Glu	
		275					280					285				
Thr	Asp	Gln	Glu	Thr	Phe	Gln	Leu	Glu	Ile	Asp	Arg	Asp	Thr	Lys	Lys	
	290					295					300					
Cys	Ala	Phe	Arg	Thr	His	Thr	Gly	Lys	Tyr	Trp	Thr	Leu	Thr	Ala	Thr	
305					310					315					320	
Gly	Gly	Val	Gln	Ser	Thr	Ala	Ser	Ser	Lys	Asn	Ala	Ser	Cys	Tyr	Phe	
				325						330				335		
Asp	Ile	Glu	Trp	Arg	Asp	Arg	Arg	Ile	Thr	Leu	Arg	Ala	Ser	Asn	Gly	
			340					345					350			
Lys	Phe	Val	Thr	Ser	Lys	Lys	Asn	Gly	Gln	Leu	Ala	Ala	Ser	Val	Glu	
		355					360					365				
Thr	Ala	Gly	Asp	Ser	Glu	Leu	Phe	Leu	Met	Lys	Leu	Ile	Asn	Arg	Pro	
	370					375					380					
Ile	Ile	Val	Phe	Arg	Gly	Glu	His	Gly	Phe	Ile	Gly	Cys	Arg	Lys	Val	
385					390					395					400	
Thr	Gly	Thr	Leu	Asp	Ala	Asn	Arg	Ser	Ser	Tyr	Asp	Val	Phe	Gln	Leu	
				405					410					415		
Glu	Phe	Asn	Asp	Gly	Ala	Tyr	Asn	Ile	Lys	Asp	Ser	Thr	Gly	Lys	Tyr	
			420					425					430			
Trp	Thr	Val	Gly	Ser	Asp	Ser	Ala	Val	Thr	Ser	Ser	Gly	Asp	Thr	Pro	
		435					440					445				
Val	Asp	Phe	Phe	Phe	Glu	Phe	Cys	Asp	Tyr	Asn	Lys	Val	Ala	Ile	Lys	
	450					455					460					
Val	Gly	Gly	Arg	Tyr	Leu	Lys	Gly	Asp	His	Ala	Gly	Val	Leu	Lys	Ala	
465					470					475					480	
Ser	Ala	Glu	Thr	Val	Asp	Pro	Ala	Ser	Leu	Trp	Glu	Tyr				
				485					490							

<210> 105
 <211> 238
 <212> PRT
 <213> Homo sapiens

<400> 105
 Met Leu Thr Thr Leu Leu Pro Ile Leu Leu Leu Ser Gly Trp Ala Phe
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 Cys Ser Gln Asp Ala Ser Asp Gly Leu Gln Arg Leu His Met Leu Gln
 20 25 30
 Ile Ser Tyr Phe Arg Asp Pro Tyr His Val Trp Tyr Gln Gly Asn Ala
 35 40 45

Ser	Leu	Gly	Gly	His	Leu	Thr	His	Val	Leu	Glu	Gly	Pro	Asp	Thr	Asn
50						55					60				
Thr	Thr	Ile	Ile	Gln	Leu	Gln	Pro	Leu	Gln	Glu	Pro	Glu	Ser	Trp	Ala
65					70					75					80
Arg	Thr	Gln	Ser	Gly	Leu	Gln	Ser	Tyr	Leu	Leu	Gln	Phe	His	Gly	Leu
				85					90					95	
Val	Arg	Leu	Val	His	Gln	Glu	Arg	Thr	Leu	Ala	Phe	Pro	Leu	Thr	Ile
			100					105					110		
Arg	Cys	Phe	Leu	Gly	Cys	Glu	Leu	Pro	Pro	Glu	Gly	Ser	Arg	Ala	His
		115					120					125			
Val	Phe	Phe	Glu	Val	Ala	Val	Asn	Gly	Ser	Ser	Phe	Val	Ser	Phe	Arg
	130					135					140				
Pro	Glu	Arg	Ala	Leu	Trp	Gln	Ala	Asp	Thr	Gln	Val	Thr	Ser	Gly	Val
145					150					155					160
Val	Thr	Phe	Thr	Leu	Gln	Gln	Leu	Asn	Ala	Tyr	Asn	Arg	Thr	Arg	Tyr
				165					170					175	
Glu	Leu	Arg	Glu	Phe	Leu	Glu	Asp	Thr	Cys	Val	Gln	Tyr	Val	Gln	Lys
			180					185					190		
His	Ile	Ser	Ala	Glu	Asn	Thr	Lys	Gly	Ser	Gln	Thr	Ser	Arg	Ser	Tyr
		195					200					205			
Thr	Ser	Leu	Val	Leu	Gly	Val	Leu	Val	Gly	Gly	Phe	Ile	Ile	Ala	Gly
	210					215					220				
Val	Ala	Val	Gly	Ile	Phe	Leu	Cys	Thr	Gly	Gly	Arg	Arg	Cys		
225					230					235					

<210> 106
 <211> 646
 <212> PRT
 <213> Homo sapiens

Met	Gly	Leu	Pro	Arg	Leu	Val	Cys	Ala	Phe	Leu	Leu	Ala	Ala	Cys	Cys
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Cys	Cys	Pro	Arg	Val	Ala	Gly	Val	Pro	Gly	Glu	Ala	Glu	Gln	Pro	Ala
			20					25					30		
Pro	Glu	Leu	Val	Glu	Val	Glu	Val	Gly	Ser	Thr	Ala	Leu	Leu	Lys	Cys
			35				40					45			
Gly	Leu	Ser	Gln	Ser	Gln	Gly	Asn	Leu	Ser	His	Val	Asp	Trp	Phe	Ser
	50					55					60				
Val	His	Lys	Glu	Lys	Arg	Thr	Leu	Ile	Phe	Arg	Val	Arg	Gln	Gly	Gln
65					70					75					80
Gly	Gln	Ser	Glu	Pro	Gly	Glu	Tyr	Glu	Gln	Arg	Leu	Ser	Leu	Gln	Asp
				85				90						95	
Arg	Gly	Ala	Thr	Leu	Ala	Leu	Thr	Gln	Val	Thr	Pro	Gln	Asp	Glu	Arg
			100					105					110		
Ile	Phe	Leu	Cys	Gln	Gly	Lys	Arg	Pro	Arg	Ser	Gln	Glu	Tyr	Arg	Ile
		115					120					125			
Gln	Leu	Arg	Val	Tyr	Lys	Ala	Pro	Glu	Glu	Pro	Asn	Ile	Gln	Val	Asn
	130					135					140				
Pro	Leu	Gly	Ile	Pro	Val	Asn	Ser	Lys	Glu	Pro	Glu	Glu	Val	Ala	Thr
145					150					155					160
Cys	Val	Gly	Arg	Asn	Gly	Tyr	Pro	Ile	Pro	Gln	Val	Ile	Trp	Tyr	Lys
				165					170					175	
Asn	Gly	Arg	Pro	Leu	Lys	Glu	Glu	Lys	Asn	Arg	Val	His	Ile	Gln	Ser
			180					185					190		
Ser	Gln	Thr	Val	Glu	Ser	Ser	Gly	Leu	Tyr	Thr	Leu	Gln	Ser	Ile	Leu
		195					200					205			
Lys	Ala	Gln	Leu	Val	Lys	Glu	Asp	Lys	Asp	Ala	Gln	Phe	Tyr	Cys	Glu
	210					215					220				
Leu	Asn	Tyr	Arg	Leu	Pro	Ser	Gly	Asn	His	Met	Lys	Glu	Ser	Arg	Glu
225					230					235					240

Val Thr Val Pro Val Phe Tyr Pro Thr Glu Lys Val Trp Leu Glu Val
 245 250 255
 Glu Pro Val Gly Met Leu Lys Glu Gly Asp Arg Val Glu Ile Arg Cys
 260 270
 Leu Ala Asp Gly Asn Pro Pro Pro His Phe Ser Ile Ser Lys Gln Asn
 275 280 285
 Pro Ser Thr Arg Glu Ala Glu Glu Glu Thr Thr Asn Asp Asn Gly Val
 290 295 300
 Leu Val Leu Glu Pro Ala Arg Lys Glu His Ser Gly Arg Tyr Glu Cys
 305 310 315 320
 Gln Ala Trp Asn Leu Asp Thr Met Ile Ser Leu Leu Ser Glu Pro Gln
 325 330 335
 Glu Leu Leu Val Asn Tyr Val Ser Asp Val Arg Val Ser Pro Ala Ala
 340 345 350
 Pro Glu Arg Gln Glu Gly Ser Ser Leu Thr Leu Thr Cys Glu Ala Glu
 355 360 365
 Ser Ser Gln Asp Leu Glu Phe Gln Trp Leu Arg Glu Glu Thr Asp Gln
 370 375 380
 Val Leu Glu Arg Gly Pro Val Leu Gln Leu His Asp Leu Lys Arg Glu
 385 390 395 400
 Ala Gly Gly Gly Tyr Arg Cys Val Ala Ser Val Pro Ser Ile Pro Gly
 405 410 415
 Leu Asn Arg Thr Gln Leu Val Lys Leu Ala Ile Phe Gly Pro Pro Trp
 420 425 430
 Met Ala Phe Lys Glu Arg Lys Val Trp Val Lys Glu Asn Met Val Leu
 435 440 445
 Asn Leu Ser Cys Glu Ala Ser Gly His Pro Arg Pro Thr Ile Ser Trp
 450 455 460
 Asn Val Asn Gly Thr Ala Ser Glu Gln Asp Gln Asp Pro Gln Arg Val
 465 470 475 480
 Leu Ser Thr Leu Asn Val Leu Val Thr Pro Glu Leu Leu Glu Thr Gly
 485 490 495
 Val Glu Cys Thr Ala Ser Asn Asp Leu Gly Lys Asn Thr Ser Ile Leu
 500 505 510
 Phe Leu Glu Leu Val Asn Leu Thr Thr Leu Thr Pro Asp Ser Asn Thr
 515 520 525
 Thr Thr Gly Leu Ser Thr Ser Thr Ala Ser Pro His Thr Arg Ala Asn
 530 535 540
 Ser Thr Ser Thr Glu Arg Lys Leu Pro Glu Pro Glu Ser Arg Gly Val
 545 550 555 560
 Val Ile Val Ala Val Ile Val Cys Ile Leu Val Leu Ala Val Leu Gly
 565 570 575
 Ala Val Leu Tyr Phe Leu Tyr Lys Lys Gly Lys Leu Pro Cys Arg Arg
 580 585 590
 Ser Gly Lys Gln Glu Ile Thr Leu Pro Pro Ser Arg Lys Thr Glu Leu
 595 600 605
 Val Val Glu Val Lys Ser Asp Lys Leu Pro Glu Glu Met Gly Leu Leu
 610 615 620
 Gln Gly Ser Ser Gly Asp Lys Arg Ala Pro Gly Asp Gln Gly Glu Lys
 625 630 635 640
 Tyr Ile Asp Leu Arg His
 645

<210> 107

<211> 212

<212> PRT

<213> Homo sapiens

<400> 107

Met Asp Tyr Leu Leu Met Ile Phe Ser Leu Leu Phe Val Ala Cys Gln
 1 5 10 15

Gly Ala Pro Glu Thr Ala Val Leu Gly Ala Glu Leu Ser Ala Val Gly
 20 25 30
 Glu Asn Gly Gly Glu Lys Pro Thr Pro Ser Pro Pro Trp Arg Leu Arg
 35 40 45
 Arg Ser Lys Arg Cys Ser Cys Ser Ser Leu Met Asp Lys Glu Cys Val
 50 55 60
 Tyr Phe Cys His Leu Asp Ile Ile Trp Val Asn Thr Pro Glu His Val
 65 70 75 80
 Val Pro Tyr Gly Leu Gly Ser Pro Arg Ser Lys Arg Ala Leu Glu Asn
 85 90 95
 Leu Leu Pro Thr Lys Ala Thr Asp Arg Glu Asn Arg Cys Gln Cys Ala
 100 105 110
 Ser Gln Lys Asp Lys Lys Cys Trp Asn Phe Cys Gln Ala Gly Lys Glu
 115 120 125
 Leu Arg Ala Glu Asp Ile Met Glu Lys Asp Trp Asn Asn His Lys Lys
 130 135 140
 Gly Lys Asp Cys Ser Lys Leu Gly Lys Lys Cys Ile Tyr Gln Gln Leu
 145 150 155 160
 Val Arg Gly Arg Lys Ile Arg Arg Ser Ser Glu Glu His Leu Arg Gln
 165 170 175
 Thr Arg Ser Glu Thr Met Arg Asn Ser Val Lys Ser Ser Phe His Asp
 180 185 190
 Pro Lys Leu Lys Gly Lys Pro Ser Arg Glu Arg Tyr Val Thr His Asn
 195 200 205
 Arg Ala His Trp
 210

<210> 108
 <211> 675
 <212> PRT
 <213> Homo sapiens

<400> 108
 Met Asp Thr Lys Ser Ile Leu Glu Glu Leu Leu Leu Lys Arg Ser Gln
 1 5 10 15
 Gln Lys Lys Lys Met Ser Pro Asn Asn Tyr Lys Glu Arg Leu Phe Val
 20 25 30
 Leu Thr Lys Thr Asn Leu Ser Tyr Tyr Glu Tyr Asp Lys Met Lys Arg
 35 40 45
 Gly Ser Arg Lys Gly Ser Ile Glu Ile Lys Lys Ile Arg Cys Val Glu
 50 55 60
 Lys Val Asn Leu Glu Glu Gln Thr Pro Val Glu Arg Gln Tyr Pro Phe
 65 70 75 80
 Gln Ile Val Tyr Lys Asp Gly Leu Leu Tyr Val Tyr Ala Ser Asn Glu
 85 90 95
 Glu Ser Arg Ser Gln Trp Leu Lys Ala Leu Gln Lys Glu Ile Arg Gly
 100 105 110
 Asn Pro His Leu Leu Val Lys Tyr His Ser Gly Phe Phe Val Asp Gly
 115 120 125
 Lys Phe Leu Cys Cys Gln Gln Ser Cys Lys Ala Ala Pro Gly Cys Thr
 130 135 140
 Leu Trp Glu Ala Tyr Ala Asn Leu His Thr Ala Val Asn Glu Glu Lys
 145 150 155 160
 His Arg Val Pro Thr Phe Pro Asp Arg Val Leu Lys Ile Pro Arg Ala
 165 170 175
 Val Pro Val Leu Lys Met Asp Ala Pro Ser Ser Ser Thr Thr Leu Ala
 180 185 190
 Gln Tyr Asp Asn Glu Ser Lys Lys Asn Tyr Gly Ser Gln Pro Pro Ser
 195 200 205
 Ser Ser Thr Ser Leu Ala Gln Tyr Asp Ser Asn Ser Lys Lys Ile Tyr
 210 215 220

Gly	Ser	Gln	Pro	Asn	Phe	Asn	Met	Gln	Tyr	Ile	Pro	Arg	Glu	Asp	Phe
225					230					235					240
Pro	Asp	Trp	Trp	Gln	Val	Arg	Lys	Leu	Lys	Ser	Ser	Ser	Ser	Ser	Glu
				245					250						255
Asp	Val	Ala	Ser	Asn	Gln	Lys	Glu	Arg	Asn	Val	Asn	His	Thr	Thr	
			260				265					270			
Ser	Lys	Ile	Ser	Trp	Glu	Phe	Pro	Glu	Ser	Ser	Ser	Ser	Glu	Glu	Glu
		275					280					285			
Glu	Asn	Leu	Asp	Asp	Tyr	Asp	Trp	Phe	Ala	Gly	Asn	Ile	Ser	Arg	Ser
	290					295					300				
Gln	Ser	Glu	Gln	Leu	Leu	Arg	Gln	Lys	Gly	Lys	Glu	Gly	Ala	Phe	Met
305					310					315					320
Val	Arg	Asn	Ser	Ser	Gln	Val	Gly	Met	Tyr	Thr	Val	Ser	Leu	Phe	Ser
				325					330					335	
Lys	Ala	Val	Asn	Asp	Lys	Lys	Gly	Thr	Val	Lys	His	Tyr	His	Val	His
			340					345					350		
Thr	Asn	Ala	Glu	Asn	Lys	Leu	Tyr	Leu	Ala	Glu	Asn	Tyr	Cys	Phe	Asp
	355						360					365			
Ser	Ile	Pro	Lys	Leu	Ile	His	Tyr	His	Gln	His	Asn	Ser	Ala	Gly	Met
	370					375					380				
Ile	Thr	Arg	Leu	Arg	His	Pro	Val	Ser	Thr	Lys	Ala	Asn	Lys	Val	Pro
385					390					395					400
Asp	Ser	Val	Ser	Leu	Gly	Asn	Gly	Ile	Trp	Glu	Leu	Lys	Arg	Glu	Glu
				405					410					415	
Ile	Thr	Leu	Leu	Lys	Glu	Leu	Gly	Ser	Gly	Gln	Phe	Gly	Val	Val	Gln
			420					425					430		
Leu	Gly	Lys	Trp	Lys	Gly	Gln	Tyr	Asp	Val	Ala	Val	Lys	Met	Ile	Lys
	435						440					445			
Glu	Gly	Ser	Met	Ser	Glu	Asp	Glu	Phe	Phe	Gln	Glu	Ala	Gln	Thr	Met
	450					455					460				
Met	Lys	Leu	Ser	His	Pro	Lys	Leu	Val	Lys	Phe	Tyr	Gly	Val	Cys	Ser
465					470					475					480
Lys	Glu	Tyr	Pro	Ile	Tyr	Ile	Val	Thr	Glu	Tyr	Ile	Ser	Asn	Gly	Cys
				485					490					495	
Leu	Leu	Asn	Tyr	Leu	Arg	Ser	His	Gly	Lys	Gly	Leu	Glu	Pro	Ser	Gln
			500					505					510		
Leu	Leu	Glu	Met	Cys	Tyr	Asp	Val	Cys	Glu	Gly	Met	Ala	Phe	Leu	Glu
		515					520					525			
Ser	His	Gln	Phe	Ile	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Cys	Leu	Val
	530					535					540				
Asp	Arg	Asp	Leu	Cys	Val	Lys	Val	Ser	Asp	Phe	Gly	Met	Thr	Arg	Tyr
545						550				555					560
Val	Leu	Asp	Asp	Gln	Tyr	Val	Ser	Ser	Val	Gly	Thr	Lys	Phe	Pro	Val
				565					570					575	
Lys	Trp	Ser	Ala	Pro	Glu	Val	Phe	His	Tyr	Phe	Lys	Tyr	Ser	Ser	Lys
			580					585					590		
Ser	Asp	Val	Trp	Ala	Phe	Gly	Ile	Leu	Met	Trp	Glu	Val	Phe	Ser	Leu
		595					600					605			
Gly	Lys	Gln	Pro	Tyr	Asp	Leu	Tyr	Asp	Asn	Ser	Gln	Val	Val	Leu	Lys
	610					615					620				
Val	Ser	Gln	Gly	His	Arg	Leu	Tyr	Arg	Pro	His	Leu	Ala	Ser	Asp	Thr
625					630					635					640
Ile	Tyr	Gln	Ile	Met	Tyr	Ser	Cys	Trp	His	Glu	Leu	Pro	Glu	Lys	Arg
				645					650					655	
Pro	Thr	Phe	Gln	Gln	Leu	Leu	Ser	Ser	Ile	Glu	Pro	Leu	Arg	Glu	Lys
			660					665					670		
Asp	Lys	His													
		675													

<210> 109
 <211> 604
 <212> PRT
 <213> Homo sapiens

<400> 109
 Met Leu Ala Arg Ala Leu Leu Leu Cys Ala Val Leu Ala Leu Ser His
 1 5 10 15
 Thr Ala Asn Pro Cys Cys Ser His Pro Cys Gln Asn Arg Gly Val Cys
 20 25 30
 Met Ser Val Gly Phe Asp Gln Tyr Lys Cys Asp Cys Thr Arg Thr Gly
 35 40 45
 Phe Tyr Gly Glu Asn Cys Ser Thr Pro Glu Phe Leu Thr Arg Ile Lys
 50 55 60
 Leu Phe Leu Lys Pro Thr Pro Asn Thr Val His Tyr Ile Leu Thr His
 65 70 75 80
 Phe Lys Gly Phe Trp Asn Val Val Asn Asn Ile Pro Phe Leu Arg Asn
 85 90 95
 Ala Ile Met Ser Tyr Val Leu Thr Ser Arg Ser His Leu Ile Asp Ser
 100 105 110
 Pro Pro Thr Tyr Asn Ala Asp Tyr Gly Tyr Lys Ser Trp Glu Ala Phe
 115 120 125
 Ser Asn Leu Ser Tyr Tyr Thr Arg Ala Leu Pro Pro Val Pro Asp Asp
 130 135 140
 Cys Pro Thr Pro Leu Gly Val Lys Gly Lys Lys Gln Leu Pro Asp Ser
 145 150 155 160
 Asn Glu Ile Val Glu Lys Leu Leu Leu Arg Arg Lys Phe Ile Pro Asp
 165 170 175
 Pro Gln Gly Ser Asn Met Met Phe Ala Phe Phe Ala Gln His Phe Thr
 180 185 190
 His Gln Phe Phe Lys Thr Asp His Lys Arg Gly Pro Ala Phe Thr Asn
 195 200 205
 Gly Leu Gly His Gly Val Asp Leu Asn His Ile Tyr Gly Glu Thr Leu
 210 215 220
 Ala Arg Gln Arg Lys Leu Arg Leu Phe Lys Asp Gly Lys Met Lys Tyr
 225 230 235 240
 Gln Ile Ile Asp Gly Glu Met Tyr Pro Pro Thr Val Lys Asp Thr Gln
 245 250 255
 Ala Glu Met Ile Tyr Pro Pro Gln Val Pro Glu His Leu Arg Phe Ala
 260 265 270
 Val Gly Gln Glu Val Phe Gly Leu Val Pro Gly Leu Met Met Tyr Ala
 275 280 285
 Thr Ile Trp Leu Arg Glu His Asn Arg Val Cys Asp Val Leu Lys Gln
 290 295 300
 Glu His Pro Glu Trp Gly Asp Glu Gln Leu Phe Gln Thr Ser Arg Leu
 305 310 315 320
 Ile Leu Ile Gly Glu Thr Ile Lys Ile Val Ile Glu Asp Tyr Val Gln
 325 330 335
 His Leu Ser Gly Tyr His Phe Lys Leu Lys Phe Asp Pro Glu Leu Leu
 340 345 350
 Phe Asn Lys Gln Phe Gln Tyr Gln Asn Arg Ile Ala Ala Glu Phe Asn
 355 360 365
 Thr Leu Tyr His Trp His Pro Leu Leu Pro Asp Thr Phe Gln Ile His
 370 375 380
 Asp Gln Lys Tyr Asn Tyr Gln Gln Phe Ile Tyr Asn Asn Ser Ile Leu
 385 390 395 400
 Leu Glu His Gly Ile Thr Gln Phe Val Glu Ser Phe Thr Arg Gln Ile
 405 410 415
 Ala Gly Arg Val Ala Gly Gly Arg Asn Val Pro Pro Ala Val Gln Lys
 420 425 430

10021560.120601

Val	Ser	Gln	Ala	Ser	Ile	Asp	Gln	Ser	Arg	Gln	Met	Lys	Tyr	Gln	Ser
		435					440					445			
Phe	Asn	Glu	Tyr	Arg	Lys	Arg	Phe	Met	Leu	Lys	Pro	Tyr	Glu	Ser	Phe
	450					455					460				
Glu	Glu	Leu	Thr	Gly	Glu	Lys	Glu	Met	Ser	Ala	Glu	Leu	Glu	Ala	Leu
465					470					475					480
Tyr	Gly	Asp	Ile	Asp	Ala	Val	Glu	Leu	Tyr	Pro	Ala	Leu	Leu	Val	Glu
			485						490					495	
Lys	Pro	Arg	Pro	Asp	Ala	Ile	Phe	Gly	Glu	Thr	Met	Val	Glu	Val	Gly
			500					505					510		
Ala	Pro	Phe	Ser	Leu	Lys	Gly	Leu	Met	Gly	Asn	Val	Ile	Cys	Ser	Pro
	515						520					525			
Ala	Tyr	Trp	Lys	Pro	Ser	Thr	Phe	Gly	Gly	Glu	Val	Gly	Phe	Gln	Ile
	530					535					540				
Ile	Asn	Thr	Ala	Ser	Ile	Gln	Ser	Leu	Ile	Cys	Asn	Asn	Val	Lys	Gly
545					550					555					560
Cys	Pro	Phe	Thr	Ser	Phe	Ser	Val	Pro	Asp	Pro	Glu	Leu	Ile	Lys	Thr
			565					570						575	
Val	Thr	Ile	Asn	Ala	Ser	Ser	Ser	Arg	Ser	Gly	Leu	Asp	Asp	Ile	Asn
			580					585					590		
Pro	Thr	Val	Leu	Leu	Lys	Glu	Arg	Ser	Thr	Glu	Leu				
		595					600								

<210> 110
 <211> 715
 <212> PRT
 <213> Homo sapiens

Met	Val	Gln	Lys	Tyr	Gln	Ser	Pro	Val	Arg	Val	Tyr	Lys	Tyr	Pro	Phe
1			5					10						15	
Glu	Leu	Ile	Met	Ala	Ala	Tyr	Glu	Arg	Phe	Pro	Thr	Cys	Pro	Leu	
			20					25				30			
Ile	Pro	Met	Phe	Val	Gly	Ser	Asp	Thr	Val	Ser	Glu	Phe	Lys	Ser	Glu
		35					40					45			
Asp	Gly	Ala	Ile	His	Val	Ile	Glu	Arg	Arg	Cys	Lys	Leu	Asp	Val	Asp
	50					55				60					
Ala	Pro	Arg	Leu	Leu	Lys	Lys	Ile	Ala	Gly	Val	Asp	Tyr	Val	Tyr	Phe
65					70				75						80
Val	Gln	Lys	Asn	Ser	Leu	Asn	Ser	Arg	Glu	Arg	Thr	Leu	His	Ile	Glu
			85					90					95		
Ala	Tyr	Asn	Glu	Thr	Phe	Ser	Asn	Arg	Val	Ile	Ile	Asn	Glu	His	Cys
		100					105					110			
Cys	Tyr	Thr	Val	His	Pro	Glu	Asn	Glu	Asp	Trp	Thr	Cys	Phe	Glu	Gln
		115				120					125				
Ser	Ala	Ser	Leu	Asp	Ile	Lys	Ser	Phe	Phe	Gly	Phe	Glu	Ser	Thr	Val
	130					135					140				
Glu	Lys	Ile	Ala	Met	Lys	Gln	Tyr	Thr	Ser	Asn	Ile	Lys	Lys	Gly	Lys
145					150					155					160
Glu	Ile	Ile	Glu	Tyr	Leu	Arg	Gln	Leu	Glu	Glu	Glu	Gly	Ile	Thr	
			165					170					175		
Phe	Val	Pro	Arg	Trp	Ser	Pro	Pro	Ser	Ile	Thr	Pro	Ser	Ser	Glu	Thr
			180					185					190		
Ser	Ser	Ser	Ser	Ser	Lys	Lys	Gln	Ala	Ala	Ser	Met	Ala	Val	Val	Ile
		195					200					205			
Pro	Glu	Ala	Ala	Leu	Lys	Glu	Gly	Leu	Ser	Gly	Asp	Ala	Leu	Ser	Ser
	210					215					220				
Pro	Ser	Ala	Pro	Glu	Pro	Val	Val	Gly	Thr	Pro	Asp	Asp	Lys	Leu	Asp
225					230					235					240
Ala	Asp	His	Ile	Lys	Arg	Tyr	Leu	Gly	Asp	Leu	Thr	Pro	Leu	Gln	Glu
			245						250					255	

Ser	Cys	Leu	Ile	Arg	Leu	Arg	Gln	Trp	Leu	Gln	Glu	Thr	His	Lys	Gly	
			260					265					270			
Lys	Ile	Pro	Lys	Asp	Glu	His	Ile	Leu	Arg	Phe	Leu	Arg	Ala	Arg	Asp	
		275					280					285				
Phe	Asn	Ile	Asp	Lys	Ala	Arg	Glu	Ile	Met	Cys	Gln	Ser	Leu	Thr	Trp	
	290					295					300					
Arg	Lys	Gln	His	Gln	Val	Asp	Tyr	Ile	Leu	Glu	Thr	Trp	Thr	Pro	Pro	
305					310					315					320	
Gln	Val	Leu	Gln	Asp	Tyr	Tyr	Ala	Gly	Gly	Trp	His	His	His	Asp	Lys	
				325					330					335		
Asp	Gly	Arg	Pro	Leu	Tyr	Val	Leu	Arg	Leu	Gly	Gln	Met	Asp	Thr	Lys	
			340					345					350			
Gly	Leu	Val	Arg	Ala	Leu	Gly	Glu	Glu	Ala	Leu	Leu	Arg	Tyr	Val	Leu	
		355					360					365				
Ser	Val	Asn	Glu	Glu	Arg	Leu	Arg	Arg	Cys	Glu	Glu	Asn	Thr	Lys	Val	
	370					375					380					
Phe	Gly	Arg	Pro	Ile	Ser	Ser	Trp	Thr	Cys	Leu	Val	Asp	Leu	Glu	Gly	
385					390					395					400	
Leu	Asn	Met	Arg	His	Leu	Trp	Arg	Pro	Gly	Val	Lys	Ala	Leu	Leu	Arg	
				405					410					415		
Ile	Ile	Glu	Val	Glu	Ala	Asn	Tyr	Pro	Glu	Thr	Leu	Gly	Arg	Leu		
		420						425					430			
Leu	Ile	Leu	Arg	Ala	Pro	Arg	Val	Phe	Pro	Val	Leu	Trp	Thr	Leu	Val	
		435					440					445				
Ser	Pro	Phe	Ile	Asp	Asp	Asn	Thr	Arg	Arg	Lys	Phe	Leu	Ile	Tyr	Ala	
	450					455					460					
Gly	Asn	Asp	Tyr	Gln	Gly	Pro	Gly	Gly	Leu	Leu	Asp	Tyr	Ile	Asp	Lys	
465					470					475					480	
Glu	Ile	Ile	Pro	Asp	Phe	Leu	Ser	Gly	Glu	Cys	Met	Cys	Glu	Val	Pro	
				485					490					495		
Glu	Gly	Gly	Leu	Val	Pro	Lys	Ser	Leu	Tyr	Arg	Thr	Ala	Glu	Glu	Leu	
			500					505					510			
Glu	Asn	Glu	Asp	Leu	Lys	Leu	Trp	Thr	Glu	Thr	Ile	Tyr	Gln	Ser	Ala	
	515						520					525				
Ser	Val	Phe	Lys	Gly	Ala	Pro	His	Glu	Ile	Leu	Ile	Gln	Ile	Val	Asp	
	530					535					540					
Ala	Ser	Ser	Val	Ile	Thr	Trp	Asp	Phe	Asp	Val	Cys	Lys	Gly	Asp	Ile	
545					550					555					560	
Val	Phe	Asn	Ile	Tyr	His	Ser	Lys	Arg	Ser	Pro	Gln	Pro	Pro	Lys	Lys	
				565					570					575		
Asp	Ser	Leu	Gly	Ala	His	Ser	Ile	Thr	Ser	Pro	Gly	Gly	Asn	Asn	Val	
		580						585					590			
Gln	Leu	Ile	Asp	Lys	Val	Trp	Gln	Leu	Gly	Arg	Asp	Tyr	Ser	Met	Val	
	595						600					605				
Glu	Ser	Pro	Leu	Ile	Cys	Lys	Glu	Gly	Glu	Ser	Val	Gln	Gly	Ser	His	
	610					615					620					
Val	Thr	Arg	Trp	Pro	Gly	Phe	Tyr	Ile	Leu	Gln	Trp	Lys	Phe	His	Ser	
625					630					635					640	
Met	Pro	Ala	Cys	Ala	Ala	Ser	Ser	Leu	Pro	Arg	Val	Asp	Asp	Val	Leu	
				645					650					655		
Ala	Ser	Leu	Gln	Val	Ser	Ser	His	Lys	Cys	Lys	Val	Met	Tyr	Tyr	Thr	
			660					665					670			
Glu	Val	Ile	Gly	Ser	Glu	Asp	Phe	Arg	Gly	Ser	Met	Thr	Ser	Leu	Glu	
		675					680					685				
Ser	Ser	His	Ser	Gly	Phe	Ser	Gln	Leu	Ser	Ala	Ala	Thr	Thr	Ser	Ser	
	690					695					700					
Ser	Gln	Ser	His	Ser	Ser	Ser	Met	Ile	Ser	Arg						
705					710					715						

<210> 111
 <211> 532
 <212> PRT
 <213> Homo sapiens

<400> 111

Met	Ala	Pro	Ser	Ser	Pro	Arg	Pro	Ala	Leu	Pro	Ala	Leu	Leu	Val	Leu
1				5					10					15	
Leu	Gly	Ala	Leu	Phe	Pro	Gly	Pro	Gly	Asn	Ala	Gln	Thr	Ser	Val	Ser
			20					25					30		
Pro	Ser	Lys	Val	Ile	Leu	Pro	Arg	Gly	Gly	Ser	Val	Leu	Val	Thr	Cys
		35					40					45			
Ser	Thr	Ser	Cys	Asp	Gln	Pro	Lys	Leu	Leu	Gly	Ile	Glu	Thr	Pro	Leu
		50				55					60				
Pro	Lys	Lys	Glu	Leu	Leu	Leu	Pro	Gly	Asn	Asn	Arg	Lys	Val	Tyr	Glu
65				70					75					80	
Leu	Ser	Asn	Val	Gln	Glu	Asp	Ser	Gln	Pro	Met	Cys	Tyr	Ser	Asn	Cys
				85					90					95	
Pro	Asp	Gly	Gln	Ser	Thr	Ala	Lys	Thr	Phe	Leu	Thr	Val	Tyr	Trp	Thr
			100					105					110		
Pro	Glu	Arg	Val	Glu	Leu	Ala	Pro	Leu	Pro	Ser	Trp	Gln	Pro	Val	Gly
		115						120				125			
Lys	Asn	Leu	Thr	Leu	Arg	Cys	Gln	Val	Glu	Gly	Gly	Ala	Pro	Arg	Ala
		130				135					140				
Asn	Leu	Thr	Val	Val	Leu	Leu	Arg	Gly	Glu	Lys	Glu	Leu	Lys	Arg	Glu
145					150				155					160	
Pro	Ala	Val	Gly	Glu	Pro	Ala	Glu	Val	Thr	Thr	Thr	Val	Leu	Val	Arg
				165					170					175	
Arg	Asp	His	His	Gly	Ala	Asn	Phe	Ser	Cys	Arg	Thr	Glu	Leu	Asp	Leu
		180						185					190		
Arg	Pro	Gln	Gly	Leu	Glu	Leu	Phe	Glu	Asn	Thr	Ser	Ala	Pro	Tyr	Gln
		195					200					205			
Leu	Gln	Thr	Phe	Val	Leu	Pro	Ala	Thr	Pro	Pro	Gln	Leu	Val	Ser	Pro
		210				215					220				
Arg	Val	Leu	Glu	Val	Asp	Thr	Gln	Gly	Thr	Val	Val	Cys	Ser	Leu	Asp
225					230				235					240	
Gly	Leu	Phe	Pro	Val	Ser	Glu	Ala	Gln	Val	His	Leu	Ala	Leu	Gly	Asp
				245					250					255	
Gln	Arg	Leu	Asn	Pro	Thr	Val	Thr	Tyr	Gly	Asn	Asp	Ser	Phe	Ser	Ala
		260						265					270		
Lys	Ala	Ser	Val	Ser	Val	Thr	Ala	Glu	Asp	Glu	Gly	Thr	Gln	Arg	Leu
		275					280					285			
Thr	Cys	Ala	Val	Ile	Leu	Gly	Asn	Gln	Ser	Gln	Glu	Thr	Leu	Gln	Thr
		290				295					300				
Val	Thr	Ile	Tyr	Ser	Phe	Pro	Ala	Pro	Asn	Val	Ile	Leu	Thr	Lys	Pro
305					310				315					320	
Glu	Val	Ser	Glu	Gly	Thr	Glu	Val	Thr	Val	Lys	Cys	Glu	Ala	His	Pro
			325						330					335	
Arg	Ala	Lys	Val	Thr	Leu	Asn	Gly	Val	Pro	Ala	Gln	Pro	Leu	Gly	Pro
		340						345					350		
Arg	Ala	Gln	Leu	Leu	Leu	Lys	Ala	Thr	Pro	Glu	Asp	Asn	Gly	Arg	Ser
		355					360					365			
Phe	Ser	Cys	Ser	Ala	Thr	Leu	Glu	Val	Ala	Gly	Gln	Leu	Ile	His	Lys
		370				375					380				
Asn	Gln	Thr	Arg	Glu	Leu	Arg	Val	Leu	Tyr	Gly	Pro	Arg	Leu	Asp	Glu
385					390					395				400	
Arg	Asp	Cys	Pro	Gly	Asn	Trp	Thr	Trp	Pro	Glu	Asn	Ser	Gln	Gln	Thr
			405						410					415	
Pro	Met	Cys	Gln	Ala	Trp	Gly	Asn	Pro	Leu	Pro	Glu	Leu	Lys	Cys	Leu
			420					425					430		

Lys Asp Gly Thr Phe Pro Leu Pro Ile Gly Glu Ser Val Thr Val Thr
 435 440 445
 Arg Asp Leu Glu Gly Thr Tyr Leu Cys Arg Ala Arg Ser Thr Gln Gly
 450 455 460
 Glu Val Thr Arg Glu Val Thr Val Asn Val Leu Ser Pro Arg Tyr Glu
 465 470 475 480
 Ile Val Ile Ile Thr Val Val Ala Ala Val Ile Met Gly Thr Ala
 485 490 495
 Gly Leu Ser Thr Tyr Leu Tyr Asn Arg Gln Arg Lys Ile Lys Lys Tyr
 500 505 510
 Arg Leu Gln Gln Ala Gln Lys Gly Thr Pro Met Lys Pro Asn Thr Gln
 515 520 525
 Ala Thr Pro Pro
 530

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 <212> PRT
 <213> Homo sapiens

<400> 112
 Met Asp Ser Leu Ala Ser Leu Val Leu Cys Gly Val Ser Leu Leu Leu
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 Ser Gly Thr Val Glu Gly Ala Met Asp Leu Ile Leu Ile Asn Ser Leu
 20 25 30
 Pro Leu Val Ser Asp Ala Glu Thr Ser Leu Thr Cys Ile Ala Ser Gly
 35 40 45
 Trp Arg Pro His Glu Pro Ile Thr Ile Gly Arg Asp Phe Glu Ala Leu
 50 55 60
 Met Asn Gln His Gln Asp Pro Leu Glu Val Thr Gln Asp Val Thr Arg
 65 70 75 80
 Glu Trp Ala Lys Lys Val Val Trp Lys Arg Glu Lys Ala Ser Lys Ile
 85 90 95
 Asn Gly Ala Tyr Phe Cys Glu Gly Arg Val Arg Gly Glu Ala Ile Arg
 100 105 110
 Ile Arg Thr Met Lys Met Arg Gln Gln Ala Ser Phe Leu Pro Ala Thr
 115 120 125
 Leu Thr Met Thr Val Asp Lys Gly Asp Asn Val Asn Ile Ser Phe Lys
 130 135 140
 Lys Val Leu Ile Lys Glu Asp Ala Val Ile Tyr Lys Asn Gly Ser
 145 150 155 160
 Phe Ile His Ser Val Pro Arg His Glu Val Pro Asp Ile Leu Glu Val
 165 170 175
 His Leu Pro His Ala Gln Pro Gln Asp Ala Gly Val Tyr Ser Ala Arg
 180 185 190
 Tyr Ile Gly Gly Asn Leu Phe Thr Ser Ala Phe Thr Arg Leu Ile Val
 195 200 205
 Arg Arg Cys Glu Ala Gln Lys Trp Gly Pro Glu Cys Asn His Leu Cys
 210 215 220
 Thr Ala Cys Met Asn Asn Gly Val Cys His Glu Asp Thr Gly Glu Cys
 225 230 235 240
 Ile Cys Pro Pro Gly Phe Met Gly Arg Thr Cys Glu Lys Ala Cys Glu
 245 250 255
 Leu His Thr Phe Gly Arg Thr Cys Lys Glu Arg Cys Ser Gly Gln Glu
 260 265 270
 Gly Cys Lys Ser Tyr Val Phe Cys Leu Pro Asp Pro Tyr Gly Cys Ser
 275 280 285
 Cys Ala Thr Gly Trp Lys Gly Leu Gln Cys Asn Glu Ala Cys His Pro
 290 295 300
 Gly Phe Tyr Gly Pro Asp Cys Lys Leu Arg Cys Ser Cys Asn Asn Gly
 305 310 315 320

10021660.120601

Glu	Met	Cys	Asp	Arg	Phe	Gln	Gly	Cys	Leu	Cys	Ser	Pro	Gly	Trp	Gln		
				325					330					335			
Gly	Leu	Gln	Cys	Glu	Arg	Glu	Gly	Ile	Pro	Arg	Met	Thr	Pro	Lys	Ile		
			340					345					350				
Val	Asp	Leu	Pro	Asp	His	Ile	Glu	Val	Asn	Ser	Gly	Lys	Phe	Asn	Pro		
		355					360					365					
Ile	Cys	Lys	Ala	Ser	Gly	Trp	Pro	Leu	Pro	Thr	Asn	Glu	Glu	Met	Thr		
	370					375					380						
Leu	Val	Lys	Pro	Asp	Gly	Thr	Val	Leu	His	Pro	Lys	Asp	Phe	Asn	His		
385					390					395					400		
Thr	Asp	His	Phe	Ser	Val	Ala	Ile	Phe	Thr	Ile	His	Arg	Ile	Leu	Pro		
				405				410						415			
Pro	Asp	Ser	Gly	Val	Trp	Val	Cys	Ser	Val	Asn	Thr	Val	Ala	Gly	Met		
			420					425					430				
Val	Glu	Lys	Pro	Phe	Asn	Ile	Ser	Val	Lys	Val	Leu	Pro	Lys	Pro	Leu		
	435						440					445					
Asn	Ala	Pro	Asn	Val	Ile	Asp	Thr	Gly	His	Asn	Phe	Ala	Val	Ile	Asn		
	450					455					460						
Ile	Ser	Ser	Glu	Pro	Tyr	Phe	Gly	Asp	Gly	Pro	Ile	Lys	Ser	Lys	Lys		
465					470					475					480		
Leu	Leu	Tyr	Lys	Pro	Val	Asn	His	Tyr	Glu	Ala	Trp	Gln	His	Ile	Gln		
				485					490					495			
Val	Thr	Asn	Glu	Ile	Val	Thr	Leu	Asn	Tyr	Leu	Glu	Pro	Arg	Thr	Glu		
		500						505					510				
Tyr	Glu	Leu	Cys	Val	Gln	Leu	Val	Arg	Arg	Gly	Glu	Gly	Gly	Glu	Gly		
	515					520						525					
His	Pro	Gly	Pro	Val	Arg	Arg	Phe	Thr	Thr	Ala	Ser	Ile	Gly	Leu	Pro		
	530					535					540						
Pro	Pro	Arg	Gly	Leu	Asn	Leu	Leu	Pro	Lys	Ser	Gln	Thr	Thr	Leu	Asn		
545					550					555					560		
Leu	Thr	Trp	Gln	Pro	Ile	Phe	Pro	Ser	Ser	Glu	Asp	Asp	Phe	Tyr	Val		
				565				570						575			
Glu	Val	Glu	Arg	Ser	Val	Gln	Lys	Ser	Asp	Gln	Gln	Asn	Ile	Lys			
		580					585					590					
Val	Pro	Gly	Asn	Leu	Thr	Ser	Val	Leu	Leu	Asn	Asn	Leu	His	Pro	Arg		
	595						600					605					
Glu	Gln	Tyr	Val	Val	Arg	Ala	Arg	Val	Asn	Thr	Lys	Ala	Gln	Gly	Glu		
	610					615					620						
Trp	Ser	Glu	Asp	Leu	Thr	Ala	Trp	Thr	Leu	Ser	Asp	Ile	Leu	Pro	Pro		
625					630					635					640		
Gln	Pro	Glu	Asn	Ile	Lys	Ile	Ser	Asn	Ile	Thr	His	Ser	Ser	Ala	Val		
				645					650					655			
Ile	Ser	Trp	Thr	Ile	Leu	Asp	Gly	Tyr	Ser	Ile	Ser	Ser	Ile	Thr	Ile		
		660					665						670				
Arg	Tyr	Lys	Val	Gln	Gly	Lys	Asn	Glu	Asp	Gln	His	Val	Asp	Val	Lys		
	675						680					685					
Ile	Lys	Asn	Ala	Thr	Ile	Ile	Gln	Tyr	Gln	Leu	Lys	Gly	Leu	Glu	Pro		
	690					695					700						
Glu	Thr	Ala	Tyr	Gln	Val	Asp	Ile	Phe	Ala	Glu	Asn	Asn	Ile	Gly	Ser		
705					710					715					720		
Ser	Asn	Pro	Ala	Phe	Ser	His	Glu	Leu	Val	Thr	Leu	Pro	Glu	Ser	Gln		
				725					730					735			
Ala	Pro	Ala	Asp	Leu	Gly	Gly	Gly	Lys	Met	Leu	Leu	Ile	Ala	Ile	Leu		
			740					745					750				
Gly	Ser	Ala	Gly	Met	Thr	Cys	Leu	Thr	Val	Leu	Leu	Ala	Phe	Leu	Ile		
	755						760					765					
Ile	Leu	Gln	Leu	Lys	Arg	Ala	Asn	Val	Gln	Arg	Arg	Met	Ala	Gln	Ala		
	770					775					780						
Phe	Gln	Asn	Val	Arg	Glu	Glu	Pro	Ala	Val	Gln	Phe	Asn	Ser	Gly	Thr		
785					790					795					800		

Leu Ala Leu Asn Arg Lys Val Lys Asn Asn Pro Asp Pro Thr Ile Tyr
805 810 815
Pro Val Leu Asp Trp Asn Asp Ile Lys Phe Gln Asp Val Ile Gly Glu
820 825 830
Gly Asn Phe Gly Gln Val Leu Lys Ala Arg Ile Lys Lys Asp Gly Leu
835 840 845
Arg Met Asp Ala Ala Ile Lys Arg Met Lys Glu Tyr Ala Ser Lys Asp
850 855 860
Asp His Arg Asp Phe Ala Gly Glu Leu Glu Val Leu Cys Lys Leu Gly
865 870 875 880
His His Pro Asn Ile Ile Asn Leu Leu Gly Ala Cys Glu His Arg Gly
885 890 895
Tyr Leu Tyr Leu Ala Ile Glu Tyr Ala Pro His Gly Asn Leu Leu Asp
900 905 910
Phe Leu Arg Lys Ser Arg Val Leu Glu Thr Asp Pro Ala Phe Ala Ile
915 920 925
Ala Asn Ser Thr Ala Ser Thr Leu Ser Ser Gln Gln Leu Leu His Phe
930 935 940
Ala Ala Asp Val Ala Arg Gly Met Asp Tyr Leu Ser Gln Lys Gln Phe
945 950 955 960
Ile His Arg Asp Leu Ala Ala Arg Asn Ile Leu Val Gly Glu Asn Tyr
965 970 975
Val Ala Lys Ile Ala Asp Phe Gly Leu Ser Arg Gly Gln Glu Val Tyr
980 985 990
Val Lys Lys Thr Met Gly Arg Leu Pro Val Arg Trp Met Ala Ile Glu
995 1000 1005
Ser Leu Asn Tyr Ser Val Tyr Thr Thr Asn Ser Asp Val Trp Ser Tyr
1010 1015 1020
Gly Val Leu Leu Trp Glu Ile Val Ser Leu Gly Gly Thr Pro Tyr Cys
1025 1030 1035 1040
Gly Met Thr Cys Ala Glu Leu Tyr Glu Lys Leu Pro Gln Gly Tyr Arg
1045 1050 1055
Leu Glu Lys Pro Leu Asn Cys Asp Asp Glu Val Tyr Asp Leu Met Arg
1060 1065 1070
Gln Cys Trp Arg Glu Lys Pro Tyr Glu Arg Pro Ser Phe Ala Gln Ile
1075 1080 1085
Leu Val Ser Leu Asn Arg Met Leu Glu Glu Arg Lys Thr Tyr Val Asn
1090 1095 1100
Thr Thr Leu Tyr Glu Lys Phe Thr Tyr Ala Gly Ile Asp Cys Ser Ala
1105 1110 1115 1120
Glu Glu Ala Ala

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<212> PRT
<213> Homo sapiens

<400> 113
Met Pro Gly Gln Glu Leu Arg Thr Val Asn Gly Ser Gln Met Leu Leu
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Val Leu Leu Val Leu Ser Trp Leu Pro His Gly Gly Ala Leu Ser Leu
20 25 30
Ala Glu Ala Ser Arg Ala Ser Phe Pro Gly Pro Ser Glu Leu His Ser
35 40 45
Glu Asp Ser Arg Phe Arg Glu Leu Arg Lys Arg Tyr Glu Asp Leu Leu
50 55 60
Thr Arg Leu Arg Ala Asn Gln Ser Trp Glu Asp Ser Asn Thr Asp Leu
65 70 75 80
Val Pro Ala Pro Ala Val Arg Ile Leu Thr Pro Glu Val Arg Leu Gly
85 90 95

Ser Gly Gly His Leu His Leu Arg Ile Ser Arg Ala Ala Leu Pro Glu
 100 105 110
 Gly Leu Pro Glu Ala Ser Arg Leu His Arg Ala Leu Phe Arg Leu Ser
 115 120 125
 Pro Thr Ala Ser Arg Ser Trp Asp Val Thr Arg Pro Leu Arg Arg Gln
 130 135 140
 Leu Ser Leu Ala Arg Pro Gln Ala Pro Ala Leu His Leu Arg Leu Ser
 145 150 155 160
 Pro Pro Pro Ser Gln Ser Asp Gln Leu Leu Ala Glu Ser Ser Ser Ala
 165 170 175
 Arg Pro Gln Leu Glu Leu His Leu Arg Pro Gln Ala Ala Arg Gly Arg
 180 185 190
 Arg Arg Ala Arg Ala Arg Asn Gly Asp Asp Cys Pro Leu Gly Pro Gly
 195 200 205
 Arg Cys Cys Arg Leu His Thr Val Arg Ala Ser Leu Glu Asp Leu Gly
 210 215 220
 Trp Ala Asp Trp Val Leu Ser Pro Arg Glu Val Gln Val Thr Met Cys
 225 230 235 240
 Ile Gly Ala Cys Pro Ser Gln Phe Arg Ala Ala Asn Met His Ala Gln
 245 250 255
 Ile Lys Thr Ser Leu His Arg Leu Lys Pro Asp Thr Glu Pro Ala Pro
 260 265 270
 Cys Cys Val Pro Ala Ser Tyr Asn Pro Met Val Leu Ile Gln Lys Thr
 275 280 285
 Asp Thr Gly Val Ser Leu Gln Thr Tyr Asp Asp Leu Leu Ala Lys Asp
 290 295 300
 Cys His Cys Ile
 305

<210> 114
 <211> 1170
 <212> PRT
 <213> Homo sapiens

<400> 114
 Met Gly Leu Ala Trp Gly Leu Gly Val Leu Phe Leu Met His Val Cys
 1 5 10 15
 Gly Thr Asn Arg Ile Pro Glu Ser Gly Gly Asp Asn Ser Val Phe Asp
 20 25 30
 Ile Phe Glu Leu Thr Gly Ala Ala Arg Lys Gly Ser Gly Arg Arg Leu
 35 40 45
 Val Lys Gly Pro Asp Pro Ser Ser Pro Ala Phe Arg Ile Glu Asp Ala
 50 55 60
 Asn Leu Ile Pro Pro Val Pro Asp Asp Lys Phe Gln Asp Leu Val Asp
 65 70 75 80
 Ala Val Arg Ala Glu Lys Gly Phe Leu Leu Leu Ala Ser Leu Arg Gln
 85 90 95
 Met Lys Lys Thr Arg Gly Thr Leu Leu Ala Leu Glu Arg Lys Asp His
 100 105 110
 Ser Gly Gln Val Phe Ser Val Val Ser Asn Gly Lys Ala Gly Thr Leu
 115 120 125
 Asp Leu Ser Leu Thr Val Gln Gly Lys Gln His Val Val Ser Val Glu
 130 135 140
 Glu Ala Leu Leu Ala Thr Gly Gln Trp Lys Ser Ile Thr Leu Phe Val
 145 150 155 160
 Gln Glu Asp Arg Ala Gln Leu Tyr Ile Asp Cys Glu Lys Met Glu Asn
 165 170 175
 Ala Glu Leu Asp Val Pro Ile Gln Ser Val Phe Thr Arg Asp Leu Ala
 180 185 190
 Ser Ile Ala Arg Leu Arg Ile Ala Lys Gly Gly Val Asn Asp Asn Phe
 195 200 205

Gln	Gly	Val	Leu	Gln	Asn	Val	Arg	Phe	Val	Phe	Gly	Thr	Thr	Pro	Glu
210						215					220				
Asp	Ile	Leu	Arg	Asn	Lys	Gly	Cys	Ser	Ser	Ser	Thr	Ser	Val	Leu	Leu
225				230						235					240
Thr	Leu	Asp	Asn	Asn	Val	Val	Asn	Gly	Ser	Ser	Pro	Ala	Ile	Arg	Thr
			245						250					255	
Asn	Tyr	Ile	Gly	His	Lys	Thr	Lys	Asp	Leu	Gln	Ala	Ile	Cys	Gly	Ile
			260					265					270		
Ser	Cys	Asp	Glu	Leu	Ser	Ser	Met	Val	Leu	Glu	Leu	Arg	Gly	Leu	Arg
		275					280					285			
Thr	Ile	Val	Thr	Thr	Leu	Gln	Asp	Ser	Ile	Arg	Lys	Val	Thr	Glu	Glu
	290					295					300				
Asn	Lys	Glu	Leu	Ala	Asn	Glu	Leu	Arg	Arg	Pro	Pro	Leu	Cys	Tyr	His
305					310					315					320
Asn	Gly	Val	Gln	Tyr	Arg	Asn	Asn	Glu	Glu	Trp	Thr	Val	Asp	Ser	Cys
				325					330					335	
Thr	Glu	Cys	His	Cys	Gln	Asn	Ser	Val	Thr	Ile	Cys	Lys	Lys	Val	Ser
			340					345					350		
Cys	Pro	Ile	Met	Pro	Cys	Ser	Asn	Ala	Thr	Val	Pro	Asp	Gly	Glu	Cys
		355					360					365			
Cys	Pro	Arg	Cys	Trp	Pro	Ser	Asp	Ser	Ala	Asp	Asp	Gly	Trp	Ser	Pro
	370					375					380				
Trp	Ser	Glu	Trp	Thr	Ser	Cys	Ser	Thr	Ser	Cys	Gly	Asn	Gly	Ile	Gln
385					390					395					400
Gln	Arg	Gly	Arg	Ser	Cys	Asp	Ser	Leu	Asn	Asn	Arg	Cys	Glu	Gly	Ser
				405					410					415	
Ser	Val	Gln	Thr	Arg	Thr	Cys	His	Ile	Gln	Glu	Cys	Asp	Lys	Arg	Phe
			420					425					430		
Lys	Gln	Asp	Gly	Gly	Trp	Ser	His	Trp	Ser	Pro	Trp	Ser	Ser	Cys	Ser
		435				440						445			
Val	Thr	Cys	Gly	Asp	Gly	Val	Ile	Thr	Arg	Ile	Arg	Leu	Cys	Asn	Ser
	450					455					460				
Pro	Ser	Pro	Gln	Met	Asn	Gly	Lys	Pro	Cys	Glu	Gly	Glu	Ala	Arg	Glu
465					470					475					480
Thr	Lys	Ala	Cys	Lys	Lys	Asp	Ala	Cys	Pro	Ile	Asn	Gly	Gly	Trp	Gly
				485					490					495	
Pro	Trp	Ser	Pro	Trp	Asp	Ile	Cys	Ser	Val	Thr	Cys	Gly	Gly	Gly	Val
		500						505					510		
Gln	Lys	Arg	Ser	Arg	Leu	Cys	Asn	Asn	Pro	Ala	Pro	Gln	Phe	Gly	Gly
		515					520					525			
Lys	Asp	Cys	Val	Gly	Asp	Val	Thr	Glu	Asn	Gln	Ile	Cys	Asn	Lys	Gln
	530					535					540				
Asp	Cys	Pro	Ile	Asp	Gly	Cys	Leu	Ser	Asn	Pro	Cys	Phe	Ala	Gly	Val
545					550					555					560
Lys	Cys	Thr	Ser	Tyr	Pro	Asp	Gly	Ser	Trp	Lys	Cys	Gly	Ala	Cys	Pro
				565					570					575	
Pro	Gly	Tyr	Ser	Gly	Asn	Gly	Ile	Gln	Cys	Thr	Asp	Val	Asp	Glu	Cys
			580					585					590		
Lys	Glu	Val	Pro	Asp	Ala	Cys	Phe	Asn	His	Asn	Gly	Glu	His	Arg	Cys
		595					600					605			
Glu	Asn	Thr	Asp	Pro	Gly	Tyr	Asn	Cys	Leu	Pro	Cys	Pro	Pro	Arg	Phe
	610					615					620				
Thr	Gly	Ser	Gln	Pro	Phe	Gly	Gln	Gly	Val	Glu	His	Ala	Thr	Ala	Asn
625					630					635					640
Lys	Gln	Val	Cys	Lys	Pro	Arg	Asn	Pro	Cys	Thr	Asp	Gly	Thr	His	Asp
				645					650					655	
Cys	Asn	Lys	Asn	Ala	Lys	Cys	Asn	Tyr	Leu	Gly	His	Tyr	Ser	Asp	Pro
			660					665					670		
Met	Tyr	Arg	Cys	Glu	Cys	Lys	Pro	Gly	Tyr	Ala	Gly	Asn	Gly	Ile	Ile
		675					680					685			

Cys	Gly	Glu	Asp	Thr	Asp	Leu	Asp	Gly	Trp	Pro	Asn	Glu	Asn	Leu	Val	690	695	700
Cys	Val	Ala	Asn	Ala	Thr	Tyr	His	Cys	Lys	Lys	Asp	Asn	Cys	Pro	Asn	705	710	715
Leu	Pro	Asn	Ser	Gly	Gln	Glu	Asp	Tyr	Asp	Lys	Asp	Gly	Ile	Gly	Asp	725	730	735
Ala	Cys	Asp	Asp	Asp	Asp	Asp	Asn	Asp	Lys	Ile	Pro	Asp	Asp	Arg	Asp	740	745	750
Asn	Cys	Pro	Phe	His	Tyr	Asn	Pro	Ala	Gln	Tyr	Asp	Tyr	Asp	Arg	Asp	755	760	765
Asp	Val	Gly	Asp	Arg	Cys	Asp	Asn	Cys	Pro	Tyr	Asn	His	Asn	Pro	Asp	770	775	780
Gln	Ala	Asp	Thr	Asp	Asn	Asn	Gly	Glu	Gly	Asp	Ala	Cys	Ala	Ala	Asp	785	790	795
Ile	Asp	Gly	Asp	Gly	Ile	Leu	Asn	Glu	Arg	Asp	Asn	Cys	Gln	Tyr	Val	805	810	815
Tyr	Asn	Val	Asp	Gln	Arg	Asp	Thr	Asp	Met	Asp	Gly	Val	Gly	Asp	Gln	820	825	830
Cys	Asp	Asn	Cys	Pro	Leu	Glu	His	Asn	Pro	Asp	Gln	Leu	Asp	Ser	Asp	835	840	845
Ser	Asp	Arg	Ile	Gly	Asp	Thr	Cys	Asp	Asn	Asn	Gln	Asp	Ile	Asp	Glu	850	855	860
Asp	Gly	His	Gln	Asn	Asn	Leu	Asp	Asn	Cys	Pro	Tyr	Val	Pro	Asn	Ala	865	870	875
Asn	Gln	Ala	Asp	His	Asp	Lys	Asp	Gly	Lys	Gly	Asp	Ala	Cys	Asp	His	885	890	895
Asp	Asp	Asp	Asn	Asp	Gly	Ile	Pro	Asp	Asp	Lys	Asp	Asn	Cys	Arg	Leu	900	905	910
Val	Pro	Asn	Pro	Asp	Gln	Lys	Asp	Ser	Asp	Gly	Asp	Gly	Arg	Gly	Asp	915	920	925
Ala	Cys	Lys	Asp	Asp	Phe	Asp	His	Asp	Ser	Val	Pro	Asp	Ile	Asp	Asp	930	935	940
Ile	Cys	Pro	Glu	Asn	Val	Asp	Ile	Ser	Glu	Thr	Asp	Phe	Arg	Arg	Phe	945	950	955
Gln	Met	Ile	Pro	Leu	Asp	Pro	Lys	Gly	Thr	Ser	Gln	Asn	Asp	Pro	Asn	965	970	975
Trp	Val	Val	Arg	His	Gln	Gly	Lys	Glu	Leu	Val	Gln	Thr	Val	Asn	Cys	980	985	990
Asp	Pro	Gly	Leu	Ala	Val	Gly	Tyr	Asp	Glu	Phe	Asn	Ala	Val	Asp	Phe	995	1000	1005
Ser	Gly	Thr	Phe	Phe	Ile	Asn	Thr	Glu	Arg	Asp	Asp	Asp	Tyr	Ala	Gly	1010	1015	1020
Phe	Val	Phe	Gly	Tyr	Gln	Ser	Ser	Ser	Arg	Phe	Tyr	Val	Val	Met	Trp	1025	1030	1035
Lys	Gln	Val	Thr	Gln	Ser	Tyr	Trp	Asp	Thr	Asn	Pro	Thr	Arg	Ala	Gln	1045	1050	1055
Gly	Tyr	Ser	Gly	Leu	Ser	Val	Lys	Val	Val	Asn	Ser	Thr	Thr	Gly	Pro	1060	1065	1070
Gly	Glu	His	Leu	Arg	Asn	Ala	Leu	Trp	His	Thr	Gly	Asn	Thr	Pro	Gly	1075	1080	1085
Gln	Val	Arg	Thr	Leu	Trp	His	Asp	Pro	Arg	His	Ile	Gly	Trp	Lys	Asp	1090	1095	1100
Phe	Thr	Ala	Tyr	Arg	Trp	Arg	Leu	Ser	His	Arg	Pro	Lys	Thr	Gly	Phe	1105	1110	1115
Ile	Arg	Val	Val	Met	Tyr	Glu	Gly	Lys	Lys	Ile	Met	Ala	Asp	Ser	Gly	1125	1130	1135
Pro	Ile	Tyr	Asp	Lys	Thr	Tyr	Ala	Gly	Gly	Arg	Leu	Gly	Leu	Phe	Val	1140	1145	1150

Phe Ser Gln Glu Met Val Phe Phe Ser Asp Leu Lys Tyr Glu Cys Arg
 1155 1160 1165
 Asp Pro
 1170

<210> 115
 <211> 373
 <212> PRT
 <213> Homo sapiens

<400> 115
 Met Ser Ser Thr Pro His Asp Pro Phe Tyr Ser Ser Pro Phe Gly Pro
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 Phe Tyr Arg Arg His Thr Pro Tyr Met Val Gln Pro Glu Tyr Arg Ile
 20 25 30
 Tyr Glu Met Asn Lys Arg Leu Gln Ser Arg Thr Glu Asp Ser Asp Asn
 35 40 45
 Leu Trp Trp Asp Ala Phe Ala Thr Glu Phe Phe Glu Asp Asp Ala Thr
 50 55 60
 Leu Thr Leu Ser Phe Cys Leu Glu Asp Gly Pro Lys Arg Tyr Thr Ile
 65 70 75 80
 Gly Arg Thr Leu Ile Pro Arg Tyr Phe Ser Thr Val Phe Glu Gly Gly
 85 90 95
 Val Thr Asp Leu Tyr Tyr Ile Leu Lys His Ser Lys Glu Ser Tyr His
 100 105 110
 Asn Ser Ser Ile Thr Val Asp Cys Asp Gln Cys Thr Met Val Thr Gln
 115 120 125
 His Gly Lys Pro Met Phe Thr Lys Val Cys Thr Glu Gly Arg Leu Ile
 130 135 140
 Leu Glu Phe Thr Phe Asp Asp Leu Met Arg Ile Lys Thr Trp His Phe
 145 150 155 160
 Thr Ile Arg Gln Tyr Arg Glu Leu Val Pro Arg Ser Ile Leu Ala Met
 165 170 175
 His Ala Gln Asp Pro Gln Val Leu Asp Gln Leu Ser Lys Asn Ile Thr
 180 185 190
 Arg Met Gly Leu Thr Asn Phe Thr Leu Asn Tyr Leu Arg Leu Cys Val
 195 200 205
 Ile Leu Glu Pro Met Gln Glu Leu Met Ser Arg His Lys Thr Tyr Asn
 210 215 220
 Leu Ser Pro Arg Asp Cys Leu Lys Thr Cys Leu Phe Gln Lys Trp Gln
 225 230 235 240
 Arg Met Val Ala Pro Pro Ala Glu Pro Thr Arg Gln Pro Thr Thr Lys
 245 250 255
 Arg Arg Lys Arg Lys Asn Ser Thr Ser Ser Thr Ser Asn Ser Ser Ala
 260 265 270
 Gly Asn Asn Ala Asn Ser Thr Gly Ser Lys Lys Lys Thr Thr Ala Ala
 275 280 285
 Asn Leu Ser Leu Ser Ser Gln Val Pro Asp Val Met Val Val Gly Glu
 290 295 300
 Pro Thr Leu Met Gly Gly Glu Phe Gly Asp Glu Asp Glu Arg Leu Ile
 305 310 315 320
 Thr Arg Leu Glu Asn Thr Gln Tyr Asp Ala Ala Asn Gly Met Asp Asp
 325 330 335
 Glu Glu Asp Phe Asn Asn Ser Pro Ala Leu Gly Asn Asn Ser Pro Trp
 340 345 350
 Asn Ser Lys Pro Pro Ala Thr Gln Glu Thr Lys Ser Glu Asn Pro Pro
 355 360 365
 Pro Gln Ala Ser Gln
 370

<210> 116
 <211> 73
 <212> PRT
 <213> Homo sapiens

<400> 116
 Met Pro Ala Leu His Ile Glu Asp Leu Pro Glu Lys Glu Lys Leu Lys
 1 5 10 15
 Met Glu Val Glu Gln Leu Arg Lys Glu Val Lys Leu Gln Arg Gln Gln
 20 25 30
 Val Ser Lys Cys Ser Glu Glu Ile Lys Asn Tyr Ile Glu Glu Arg Ser
 35 40 45
 Gly Glu Asp Pro Leu Val Lys Gly Ile Pro Glu Asp Lys Asn Pro Phe
 50 55 60
 Lys Glu Lys Gly Ser Cys Val Ile Ser
 65 70

<210> 117
 <211> 667
 <212> PRT
 <213> Homo sapiens

<400> 117
 Met His His Gln Arg Met Ala Ala Leu Gly Thr Asp Lys Glu Leu
 1 5 10 15
 Ser Asp Leu Leu Asp Phe Ser Ala Met Phe Ser Pro Pro Val Ser Ser
 20 25 30
 Gly Lys Asn Gly Pro Thr Ser Leu Ala Ser Gly His Phe Thr Gly Ser
 35 40 45
 Asn Val Glu Asp Arg Ser Ser Ser Gly Ser Trp Gly Asn Gly Gly His
 50 55 60
 Pro Ser Pro Ser Arg Asn Tyr Gly Asp Gly Thr Pro Tyr Asp His Met
 65 70 75 80
 Thr Ser Arg Asp Leu Gly Ser His Asp Asn Leu Ser Pro Pro Phe Val
 85 90 95
 Asn Ser Arg Ile Gln Ser Lys Thr Glu Arg Gly Ser Tyr Ser Ser Tyr
 100 105 110
 Gly Arg Glu Ser Asn Leu Gln Gly Cys His Gln Gln Ser Leu Leu Gly
 115 120 125
 Gly Asp Met Asp Met Gly Asn Pro Gly Thr Leu Ser Pro Thr Lys Pro
 130 135 140
 Gly Ser Gln Tyr Tyr Gln Tyr Ser Ser Asn Asn Pro Arg Arg Arg Pro
 145 150 155 160
 Leu His Ser Ser Ala Met Glu Val Gln Thr Lys Lys Val Arg Lys Val
 165 170 175
 Pro Pro Gly Leu Pro Ser Ser Val Tyr Ala Pro Ser Ala Ser Thr Ala
 180 185 190
 Asp Tyr Asn Arg Asp Ser Pro Gly Tyr Pro Ser Ser Lys Pro Ala Thr
 195 200 205
 Ser Thr Phe Pro Ser Ser Phe Phe Met Gln Asp Gly His His Ser Ser
 210 215 220
 Asp Pro Trp Ser Ser Ser Ser Gly Met Asn Gln Pro Gly Tyr Ala Gly
 225 230 235 240
 Met Leu Gly Asn Ser Ser His Ile Pro Gln Ser Ser Ser Tyr Cys Ser
 245 250 255
 Leu His Pro His Glu Arg Leu Ser Tyr Pro Ser His Ser Ser Ala Asp
 260 265 270
 Ile Asn Ser Ser Leu Pro Pro Met Ser Thr Phe His Arg Ser Gly Thr
 275 280 285
 Asn His Tyr Ser Thr Ser Ser Cys Thr Pro Pro Ala Asn Gly Thr Asp
 290 295 300

Ser Ile Met Ala Asn Arg Gly Ser Gly Ala Ala Gly Ser Ser Gln Thr
 305 310 315 320
 Gly Asp Ala Leu Gly Lys Ala Leu Ala Ser Ile Tyr Ser Pro Asp His
 325 330 335
 Thr Asn Asn Ser Phe Ser Ser Asn Pro Ser Thr Pro Val Gly Ser Pro
 340 345 350
 Pro Ser Leu Ser Ala Gly Thr Ala Val Trp Ser Arg Asn Gly Gly Gln
 355 360 365
 Ala Ser Ser Ser Pro Asn Tyr Glu Gly Pro Leu His Ser Leu Gln Ser
 370 375 380
 Arg Ile Glu Asp Arg Leu Glu Arg Leu Asp Asp Ala Ile His Val Leu
 385 390 395 400
 Arg Asn His Ala Val Gly Pro Ser Thr Ala Met Pro Gly Gly His Gly
 405 410 415
 Asp Met His Gly Ile Ile Gly Pro Ser His Asn Gly Ala Met Gly Gly
 420 425 430
 Leu Gly Ser Gly Tyr Gly Thr Gly Leu Leu Ser Ala Asn Arg His Ser
 435 440 445
 Leu Met Val Gly Thr His Arg Glu Asp Gly Val Ala Leu Arg Gly Ser
 450 455 460
 His Ser Leu Leu Pro Asn Gln Val Pro Val Pro Gln Leu Pro Val Gln
 465 470 475 480
 Ser Ala Thr Ser Pro Asp Leu Asn Pro Pro Gln Asp Pro Tyr Arg Gly
 485 490 495
 Met Pro Pro Gly Leu Gln Gly Gln Ser Val Ser Ser Gly Ser Ser Glu
 500 505 510
 Ile Lys Ser Asp Asp Glu Gly Asp Glu Asn Leu Gln Asp Thr Lys Ser
 515 520 525
 Ser Glu Asp Lys Lys Leu Asp Asp Asp Lys Lys Asp Ile Lys Ser Ile
 530 535 540
 Thr Ser Asn Asn Asp Asp Glu Asp Leu Thr Pro Glu Gln Lys Ala Glu
 545 550 555 560
 Arg Glu Lys Glu Arg Arg Met Ala Asn Asn Ala Arg Glu Arg Leu Arg
 565 570 575
 Val Arg Asp Ile Asn Glu Ala Phe Lys Glu Leu Gly Arg Met Val Gln
 580 585 590
 Leu His Leu Lys Ser Asp Lys Pro Gln Thr Lys Leu Leu Ile Leu His
 595 600 605
 Gln Ala Val Ala Val Ile Leu Ser Leu Glu Gln Gln Val Arg Glu Arg
 610 615 620
 Asn Leu Asn Pro Lys Ala Ala Cys Leu Lys Arg Arg Glu Glu Glu Lys
 625 630 635 640
 Val Ser Ser Glu Pro Pro Pro Leu Ser Leu Ala Gly Pro His Pro Gly
 645 650 655
 Met Gly Asp Ala Ser Asn His Met Gly Gln Met
 660 665

<210> 118
 <211> 749
 <212> PRT
 <213> Homo sapiens

<400> 118
 Met Ser Phe Ile Asp Pro Tyr Gln His Ile Ile Val Glu His Gln Tyr
 1 5 10 15
 Ser His Lys Phe Thr Val Val Val Leu Arg Ala Thr Lys Val Thr Lys
 20 25 30
 Gly Ala Phe Gly Asp Met Leu Asp Thr Pro Asp Pro Tyr Val Glu Leu
 35 40 45
 Phe Ile Ser Thr Thr Pro Asp Ser Arg Lys Arg Thr Arg His Phe Asn
 50 55 60

Asn	Asp	Ile	Asn	Pro	Val	Trp	Asn	Glu	Thr	Phe	Glu	Phe	Ile	Leu	Asp	65	70	75	80
Pro	Asn	Gln	Glu	Asn	Val	Leu	Glu	Ile	Thr	Leu	Met	Asp	Ala	Asn	Tyr		85	90	95
Val	Met	Asp	Glu	Thr	Leu	Gly	Thr	Ala	Thr	Phe	Thr	Val	Ser	Ser	Met	100	105	110	
Lys	Val	Gly	Glu	Lys	Lys	Glu	Val	Pro	Phe	Ile	Phe	Asn	Gln	Val	Thr	115	120	125	
Glu	Met	Val	Leu	Glu	Met	Ser	Leu	Glu	Val	Cys	Ser	Cys	Pro	Asp	Leu	130	135	140	
Arg	Phe	Ser	Met	Ala	Leu	Cys	Asp	Gln	Glu	Lys	Thr	Phe	Arg	Gln	Gln	145	150	155	160
Arg	Lys	Glu	His	Ile	Arg	Glu	Ser	Met	Lys	Lys	Leu	Leu	Gly	Pro	Lys	165	170	175	
Asn	Ser	Glu	Gly	Leu	His	Ser	Ala	Arg	Asp	Val	Pro	Val	Val	Ala	Ile	180	185	190	
Leu	Gly	Ser	Gly	Gly	Gly	Phe	Arg	Ala	Met	Val	Gly	Phe	Ser	Gly	Val	195	200	205	
Met	Lys	Ala	Leu	Tyr	Glu	Ser	Gly	Ile	Leu	Asp	Cys	Ala	Thr	Tyr	Val	210	215	220	
Ala	Gly	Leu	Ser	Gly	Ser	Thr	Trp	Tyr	Met	Ser	Thr	Leu	Tyr	Ser	His	225	230	235	240
Pro	Asp	Phe	Pro	Glu	Lys	Gly	Pro	Glu	Glu	Ile	Asn	Glu	Glu	Leu	Met	245	250	255	
Lys	Asn	Val	Ser	His	Asn	Pro	Leu	Leu	Leu	Leu	Thr	Pro	Gln	Lys	Val	260	265	270	
Lys	Arg	Tyr	Val	Glu	Ser	Leu	Trp	Lys	Lys	Lys	Ser	Ser	Gly	Gln	Pro	275	280	285	
Val	Thr	Phe	Thr	Asp	Ile	Phe	Gly	Met	Leu	Ile	Gly	Glu	Thr	Leu	Ile	290	295	300	
His	Asn	Arg	Met	Asn	Thr	Thr	Leu	Ser	Ser	Leu	Lys	Glu	Lys	Val	Asn	305	310	315	320
Thr	Ala	Gln	Cys	Pro	Leu	Pro	Leu	Phe	Thr	Cys	Leu	His	Val	Lys	Pro	325	330	335	
Asp	Val	Ser	Glu	Leu	Met	Phe	Ala	Asp	Trp	Val	Glu	Phe	Ser	Pro	Tyr	340	345	350	
Glu	Ile	Gly	Met	Ala	Lys	Tyr	Gly	Thr	Phe	Met	Ala	Pro	Asp	Leu	Phe	355	360	365	
Gly	Ser	Lys	Phe	Phe	Met	Gly	Thr	Val	Val	Lys	Lys	Tyr	Glu	Glu	Asn	370	375	380	
Pro	Leu	His	Phe	Leu	Met	Gly	Val	Trp	Gly	Ser	Ala	Phe	Ser	Ile	Leu	385	390	395	400
Phe	Asn	Arg	Val	Leu	Gly	Val	Ser	Gly	Ser	Gln	Ser	Arg	Gly	Ser	Thr	405	410	415	
Met	Glu	Glu	Glu	Leu	Glu	Asn	Ile	Thr	Thr	Lys	His	Ile	Val	Ser	Asn	420	425	430	
Asp	Ser	Ser	Asp	Ser	Asp	Asp	Glu	Ser	His	Glu	Pro	Lys	Gly	Thr	Glu	435	440	445	
Asn	Glu	Asp	Ala	Gly	Ser	Asp	Tyr	Gln	Ser	Asp	Asn	Gln	Ala	Ser	Trp	450	455	460	
Ile	His	Arg	Met	Ile	Met	Ala	Leu	Val	Ser	Asp	Ser	Ala	Leu	Phe	Asn	465	470	475	480
Thr	Arg	Glu	Gly	Arg	Ala	Gly	Lys	Val	His	Asn	Phe	Met	Leu	Gly	Leu	485	490	495	
Asn	Leu	Asn	Thr	Ser	Tyr	Pro	Leu	Ser	Pro	Leu	Ser	Asp	Phe	Ala	Thr	500	505	510	
Gln	Asp	Ser	Phe	Asp	Asp	Asp	Glu	Leu	Asp	Ala	Ala	Val	Ala	Asp	Pro	515	520	525	
Asp	Glu	Phe	Glu	Arg	Ile	Tyr	Glu	Pro	Leu	Asp	Val	Lys	Ser	Lys	Lys	530	535	540	

Ile His Val Val Asp Ser Gly Leu Thr Phe Asn Leu Pro Tyr Pro Leu
 545 550 555 560
 Ile Leu Arg Pro Gln Arg Gly Val Asp Leu Ile Ile Ser Phe Asp Phe
 565 570 575
 Ser Ala Arg Pro Ser Asp Ser Ser Pro Pro Phe Lys Glu Leu Leu Leu
 580 585 590
 Ala Glu Lys Trp Ala Lys Met Asn Lys Leu Pro Phe Pro Lys Ile Asp
 595 600 605
 Pro Tyr Val Phe Asp Arg Glu Gly Leu Lys Glu Cys Tyr Val Phe Lys
 610 615 620
 Pro Lys Asn Pro Asp Met Glu Lys Asp Cys Pro Thr Ile Ile His Phe
 625 630 635 640
 Val Leu Ala Asn Ile Asn Phe Arg Lys Tyr Lys Ala Pro Gly Val Pro
 645 650 655
 Arg Glu Thr Glu Glu Glu Lys Glu Ile Ala Asp Phe Asp Ile Phe Asp
 660 665 670
 Asp Pro Glu Ser Pro Phe Ser Thr Phe Asn Phe Gln Tyr Pro Asn Gln
 675 680 685
 Ala Phe Lys Arg Leu His Asp Leu Met His Phe Asn Thr Leu Asn Asn
 690 695 700
 Ile Asp Val Ile Lys Glu Ala Met Val Glu Ser Ile Glu Tyr Arg Arg
 705 710 715 720
 Gln Asn Pro Ser Arg Cys Ser Val Ser Leu Ser Asn Val Glu Ala Arg
 725 730 735
 Arg Phe Phe Asn Lys Glu Phe Leu Ser Lys Pro Lys Ala
 740 745

<210> 119
 <211> 235
 <212> PRT
 <213> Homo sapiens

<400> 119
 Met Asp Pro Ala Arg Pro Leu Gly Leu Ser Ile Leu Leu Leu Phe Leu
 1 5 10 15
 Thr Glu Ala Ala Leu Gly Asp Ala Ala Gln Glu Pro Thr Gly Asn Asn
 20 25 30
 Ala Glu Ile Cys Leu Leu Pro Leu Asp Tyr Gly Pro Cys Arg Ala Leu
 35 40 45
 Leu Leu Arg Tyr Tyr Tyr Asp Arg Tyr Thr Gln Ser Cys Arg Gln Phe
 50 55 60
 Leu Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu
 65 70 75 80
 Ala Cys Asp Asp Ala Cys Trp Arg Ile Glu Lys Val Pro Lys Val Cys
 85 90 95
 Arg Leu Gln Val Ser Val Asp Asp Gln Cys Glu Gly Ser Thr Glu Lys
 100 105 110
 Tyr Phe Phe Asn Leu Ser Ser Met Thr Cys Glu Lys Phe Phe Ser Gly
 115 120 125
 Gly Cys His Arg Asn Arg Ile Glu Asn Arg Phe Pro Asp Glu Ala Thr
 130 135 140
 Cys Met Gly Phe Cys Ala Pro Lys Lys Ile Pro Ser Phe Cys Tyr Ser
 145 150 155 160
 Pro Lys Asp Glu Gly Leu Cys Ser Ala Asn Val Thr Arg Tyr Tyr Phe
 165 170 175
 Asn Pro Arg Tyr Arg Thr Cys Asp Ala Phe Thr Tyr Thr Gly Cys Gly
 180 185 190
 Gly Asn Asp Asn Asn Phe Val Ser Arg Glu Asp Cys Lys Arg Ala Cys
 195 200 205
 Ala Lys Ala Leu Lys Lys Lys Lys Lys Met Pro Lys Leu Arg Phe Ala
 210 215 220

Ser Arg Ile Arg Lys Ile Arg Lys Lys Gln Phe
225 230 235

<210> 120
<211> 2058
<212> PRT
<213> Homo sapiens

<400> 120
Met Asp Asn Phe Phe Thr Glu Gly Thr Arg Val Trp Leu Arg Glu Asn
1 5 10 15
Gly Gln His Phe Pro Ser Thr Val Asn Ser Cys Ala Glu Gly Ile Val
20 25 30
Val Phe Arg Thr Asp Tyr Gly Gln Val Phe Thr Tyr Lys Gln Ser Thr
35 40 45
Ile Thr His Gln Lys Val Thr Ala Met His Pro Thr Asn Glu Glu Gly
50 55 60
Val Asp Asp Met Ala Ser Leu Thr Glu Leu His Gly Gly Ser Ile Met
65 70 75 80
Tyr Asn Leu Phe Gln Arg Tyr Lys Arg Asn Gln Ile Tyr Thr Tyr Ile
85 90 95
Gly Ser Ile Leu Ala Ser Val Asn Pro Tyr Gln Pro Ile Ala Gly Leu
100 105 110
Tyr Glu Pro Ala Thr Met Glu Gln Tyr Ser Arg Arg His Leu Gly Glu
115 120 125
Leu Pro Pro His Ile Phe Ala Ile Ala Asn Glu Cys Tyr Arg Cys Leu
130 135 140
Trp Lys Arg Tyr Asp Asn Gln Cys Ile Leu Ile Ser Gly Glu Ser Gly
145 150 155 160
Ala Gly Lys Thr Glu Ser Thr Lys Leu Ile Leu Lys Phe Leu Ser Val
165 170 175
Ile Ser Gln Gln Ser Leu Glu Leu Ser Leu Lys Glu Lys Thr Ser Cys
180 185 190
Val Glu Arg Ala Ile Leu Glu Ser Ser Pro Ile Met Glu Ala Phe Gly
195 200 205
Asn Ala Lys Thr Val Tyr Asn Asn Asn Ser Ser Arg Phe Gly Lys Phe
210 215 220
Val Gln Leu Asn Ile Cys Gln Lys Gly Asn Ile Gln Gly Gly Arg Ile
225 230 235 240
Val Asp Tyr Leu Leu Glu Lys Asn Arg Val Val Arg Gln Asn Pro Gly
245 250 255
Glu Arg Asn Tyr His Ile Phe Tyr Ala Leu Leu Ala Gly Leu Glu His
260 265 270
Glu Glu Arg Glu Glu Phe Tyr Leu Ser Thr Pro Glu Asn Tyr His Tyr
275 280 285
Leu Asn Gln Ser Gly Cys Val Glu Asp Lys Thr Ile Ser Asp Gln Glu
290 295 300
Ser Phe Arg Glu Val Ile Thr Ala Met Asp Val Met Gln Phe Ser Lys
305 310 315 320
Glu Glu Val Arg Glu Val Ser Arg Leu Leu Ala Gly Ile Leu His Leu
325 330 335
Gly Asn Ile Glu Phe Ile Thr Ala Gly Gly Ala Gln Val Ser Phe Lys
340 345 350
Thr Ala Leu Gly Arg Ser Ala Glu Leu Leu Gly Leu Asp Pro Thr Gln
355 360 365
Leu Thr Asp Ala Leu Thr Gln Arg Ser Met Phe Leu Arg Gly Glu Glu
370 375 380
Ile Leu Thr Pro Leu Asn Val Gln Gln Ala Val Asp Ser Arg Asp Ser
385 390 395 400
Leu Ala Met Ala Leu Tyr Ala Cys Cys Phe Glu Trp Val Ile Lys Lys
405 410 415

Ile	Asn	Ser	Arg	Ile	Lys	Gly	Asn	Glu	Asp	Phe	Lys	Ser	Ile	Gly	Ile
			420					425					430		
Leu	Asp	Ile	Phe	Gly	Phe	Glu	Asn	Phe	Glu	Val	Asn	His	Phe	Glu	Gln
		435					440					445			
Phe	Asn	Ile	Asn	Tyr	Ala	Asn	Glu	Lys	Leu	Gln	Glu	Tyr	Phe	Asn	Lys
		450				455					460				
His	Ile	Phe	Ser	Leu	Glu	Gln	Leu	Glu	Tyr	Ser	Arg	Glu	Gly	Leu	Val
465				470						475					480
Trp	Glu	Asp	Ile	Asp	Trp	Ile	Asp	Asn	Gly	Glu	Cys	Leu	Asp	Leu	Ile
				485					490						
Glu	Lys	Lys	Leu	Gly	Leu	Leu	Ala	Leu	Ile	Asn	Glu	Glu	Ser	His	Phe
			500					505					510		
Pro	Gln	Ala	Thr	Asp	Ser	Thr	Leu	Leu	Glu	Lys	Leu	His	Ser	Gln	His
		515					520					525			
Ala	Asn	Asn	His	Phe	Tyr	Val	Lys	Pro	Arg	Val	Ala	Val	Asn	Asn	Phe
		530				535					540				
Gly	Val	Lys	His	Tyr	Ala	Gly	Glu	Val	Gln	Tyr	Asp	Val	Arg	Gly	Ile
545				550						555					560
Leu	Glu	Lys	Asn	Arg	Asp	Thr	Phe	Arg	Asp	Asp	Leu	Leu	Asn	Leu	Leu
				565					570						
Arg	Glu	Ser	Arg	Phe	Asp	Phe	Ile	Tyr	Asp	Leu	Phe	Glu	His	Val	Ser
			580				585						590		
Ser	Arg	Asn	Asn	Gln	Asp	Thr	Leu	Lys	Cys	Gly	Ser	Lys	His	Arg	Arg
		595				600						605			
Pro	Thr	Val	Ser	Ser	Gln	Phe	Lys	Asp	Ser	Leu	His	Ser	Leu	Met	Ala
		610				615					620				
Thr	Leu	Ser	Ser	Ser	Asn	Pro	Phe	Phe	Val	Arg	Cys	Ile	Lys	Pro	Asn
625					630					635					640
Met	Gln	Lys	Met	Pro	Asp	Gln	Phe	Asp	Gln	Ala	Val	Val	Leu	Asn	Gln
				645					650					655	
Leu	Arg	Tyr	Ser	Gly	Met	Leu	Glu	Thr	Val	Arg	Ile	Arg	Lys	Ala	Gly
			660					665					670		
Tyr	Ala	Val	Arg	Arg	Pro	Phe	Gln	Asp	Phe	Tyr	Lys	Arg	Tyr	Lys	Val
		675				680						685			
Leu	Met	Arg	Asn	Leu	Ala	Leu	Pro	Glu	Asp	Val	Arg	Gly	Lys	Cys	Thr
		690				695					700				
Ser	Leu	Leu	Gln	Leu	Tyr	Asp	Ala	Ser	Asn	Ser	Glu	Trp	Gln	Leu	Gly
705				710						715					720
Lys	Thr	Lys	Val	Phe	Leu	Arg	Glu	Ser	Leu	Glu	Gln	Lys	Leu	Glu	Lys
			725						730					735	
Arg	Arg	Glu	Glu	Glu	Val	Ser	His	Ala	Ala	Met	Val	Ile	Arg	Ala	His
			740					745					750		
Val	Leu	Gly	Phe	Leu	Ala	Arg	Lys	Gln	Tyr	Arg	Lys	Val	Leu	Tyr	Cys
		755					760					765			
Val	Val	Ile	Ile</												

Ile	Glu	Asp	Leu	Gln	Arg	Met	Lys	Glu	Gln	Gln	Glu	Leu	Ser	Leu	Thr
			900					905					910		
Glu	Ala	Ser	Leu	Gln	Lys	Leu	Gln	Glu	Arg	Arg	Asp	Gln	Glu	Leu	Arg
		915					920					925			
Arg	Leu	Glu	Glu	Glu	Ala	Cys	Arg	Ala	Ala	Gln	Glu	Phe	Leu	Glu	Ser
		930				935					940				
Leu	Asn	Phe	Asp	Glu	Ile	Asp	Glu	Cys	Val	Arg	Asn	Ile	Glu	Arg	Ser
945					950					955					960
Leu	Ser	Val	Gly	Ser	Glu	Phe	Ser	Ser	Glu	Leu	Ala	Glu	Ser	Ala	Cys
				965					970					975	
Glu	Glu	Lys	Pro	Asn	Phe	Asn	Phe	Ser	Gln	Pro	Tyr	Pro	Glu	Glu	Glu
			980					985					990		
Val	Asp	Glu	Gly	Phe	Glu	Ala	Asp	Asp	Asp	Ala	Phe	Lys	Asp	Ser	Pro
		995					1000					1005			
Asn	Pro	Ser	Glu	His	Gly	His	Ser	Asp	Gln	Arg	Thr	Ser	Gly	Ile	Arg
	1010					1015					1020				
Thr	Ser	Asp	Asp	Ser	Ser	Glu	Glu	Asp	Pro	Tyr	Met	Asn	Asp	Thr	Val
1025					1030					1035					1040
Val	Pro	Thr	Ser	Pro	Ser	Ala	Asp	Ser	Thr	Val	Leu	Leu	Ala	Pro	Ser
				1045					1050					1055	
Val	Gln	Asp	Ser	Gly	Ser	Leu	His	Asn	Ser	Ser	Ser	Gly	Glu	Ser	Thr
			1060					1065					1070		
Tyr	Cys	Met	Pro	Gln	Asn	Ala	Gly	Asp	Leu	Pro	Ser	Pro	Asp	Gly	Asp
		1075					1080					1085			
Tyr	Asp	Tyr	Asp	Gln	Asp	Asp	Tyr	Glu	Asp	Gly	Ala	Ile	Thr	Ser	Gly
	1090					1095					1100				
Ser	Ser	Val	Thr	Phe	Ser	Asn	Ser	Tyr	Gly	Ser	Gln	Trp	Ser	Pro	Asp
1105					1110					1115					1120
Tyr	Arg	Cys	Ser	Val	Gly	Thr	Tyr	Asn	Ser	Ser	Gly	Ala	Tyr	Arg	Phe
				1125					1130					1135	
Ser	Ser	Glu	Gly	Ala	Gln	Ser	Ser	Phe	Glu	Asp	Ser	Glu	Glu	Asp	Phe
			1140					1145					1150		
Asp	Ser	Arg	Phe	Asp	Thr	Asp	Asp	Glu	Leu	Ser	Tyr	Arg	Arg	Asp	Ser
		1155					1160					1165			
Val	Tyr	Ser	Cys	Val	Thr	Leu	Pro	Tyr	Phe	His	Ser	Phe	Leu	Tyr	Met
	1170					1175					1180				
Lys	Gly	Gly	Leu	Met	Asn	Ser	Trp	Lys	Arg	Arg	Trp	Cys	Val	Leu	Lys
1185					1190					1195					1200
Asp	Glu	Thr	Phe	Leu	Trp	Phe	Arg	Ser	Lys	Gln	Glu	Ala	Leu	Lys	Gln
			1205						1210					1215	
Gly	Trp	Leu	His	Lys	Lys	Gly	Gly	Gly	Ser	Ser	Thr	Leu	Ser	Arg	Arg
		1220					1225						1230		
Asn	Trp	Lys	Lys	Arg	Trp	Phe	Val	Leu	Arg	Gln	Ser	Lys	Leu	Met	Tyr
		1235					1240				</				

Thr Leu Leu Gln Arg Ser Lys Gly Asp Thr Arg Val Glu Gly Gln Glu
 1380 1385 1390
 Phe Ile Val Arg Gly Trp Leu His Lys Glu Val Lys Asn Ser Pro Lys
 1395 1400 1405
 Met Ser Ser Leu Lys Leu Lys Lys Arg Trp Phe Val Leu Thr His Asn
 1410 1415 1420
 Ser Leu Asp Tyr Tyr Lys Ser Ser Glu Lys Asn Ala Leu Lys Leu Gly
 1425 1430 1435 1440
 Thr Leu Val Leu Asn Ser Leu Cys Ser Val Val Pro Pro Asp Glu Lys
 1445 1450 1455
 Ile Phe Lys Glu Thr Gly Tyr Trp Asn Val Thr Val Tyr Gly Arg Lys
 1460 1465 1470
 His Cys Tyr Arg Leu Tyr Thr Lys Leu Leu Asn Glu Ala Thr Arg Trp
 1475 1480 1485
 Ser Ser Ala Ile Gln Asn Val Thr Asp Thr Lys Ala Pro Ile Asp Thr
 1490 1495 1500
 Pro Thr Gln Gln Leu Ile Gln Asp Ile Lys Glu Asn Cys Leu Asn Ser
 1505 1510 1515 1520
 Asp Val Val Glu Gln Ile Tyr Lys Arg Asn Pro Ile Leu Arg Tyr Thr
 1525 1530 1535
 His His Pro Leu His Ser Pro Leu Leu Pro Leu Pro Tyr Gly Asp Ile
 1540 1545 1550
 Asn Leu Asn Leu Leu Lys Asp Lys Gly Tyr Thr Thr Leu Gln Asp Glu
 1555 1560 1565
 Ala Ile Lys Ile Phe Asn Ser Leu Gln Gln Leu Glu Ser Met Ser Asp
 1570 1575 1580
 Pro Ile Pro Ile Ile Gln Gly Ile Leu Gln Thr Gly His Asp Leu Arg
 1585 1590 1595 1600
 Pro Leu Arg Asp Glu Leu Tyr Cys Gln Leu Ile Lys Gln Thr Asn Lys
 1605 1610 1615
 Val Pro His Pro Gly Ser Val Gly Asn Leu Tyr Ser Trp Gln Ile Leu
 1620 1625 1630
 Thr Cys Leu Ser Cys Thr Phe Leu Pro Ser Arg Gly Ile Leu Lys Tyr
 1635 1640 1645
 Leu Lys Phe His Leu Lys Arg Ile Arg Glu Gln Phe Pro Gly Thr Glu
 1650 1655 1660
 Met Glu Lys Tyr Ala Leu Phe Thr Tyr Glu Ser Leu Lys Lys Thr Lys
 1665 1670 1675 1680
 Cys Arg Glu Phe Val Pro Ser Arg Asp Glu Ile Glu Ala Leu Ile His
 1685 1690 1695
 Arg Gln Glu Met Thr Ser Thr Val Tyr Cys His Gly Gly Gly Ser Cys
 1700 1705 1710
 Lys Ile Thr Ile Asn Ser His Thr Thr Ala Gly Glu Val Val Glu Lys
 1715 1720 1725
 Leu Ile Arg Gly Leu Ala Met Glu Asp Ser Arg Asn Met Phe Ala Leu
 1730 1735 1740
 Phe Glu Tyr Asn Gly His Val Asp Lys Ala Ile Glu Ser Arg Thr Val
 1745 1750 1755 1760
 Val Ala Asp Val Leu Ala Lys Phe Glu Lys Leu Ala Ala Thr Ser Glu
 1765 1770 1775
 Val Gly Asp Leu Pro Trp Lys Phe Tyr Phe Lys Leu Tyr Cys Phe Leu
 1780 1785 1790
 Asp Thr Asp Asn Val Pro Lys Asp Ser Val Glu Phe Ala Phe Met Phe
 1795 1800 1805
 Glu Gln Ala His Glu Ala Val Ile His Gly His His Pro Ala Pro Glu
 1810 1815 1820
 Glu Asn Leu Gln Val Leu Ala Ala Leu Arg Leu Gln Tyr Leu Gln Gly
 1825 1830 1835 1840
 Asp Tyr Thr Leu His Ala Ala Ile Pro Pro Leu Glu Glu Val Tyr Ser
 1845 1850 1855

Leu Gln Arg Leu Lys Ala Arg Ile Ser Gln Ser Thr Lys Thr Phe Thr
 1860 1865 1870
 Pro Cys Glu Arg Leu Glu Lys Arg Arg Thr Ser Phe Leu Glu Gly Thr
 1875 1880 1885
 Leu Arg Arg Ser Phe Arg Thr Gly Ser Val Val Arg Gln Lys Val Glu
 1890 1895 1900
 Glu Glu Gln Met Leu Asp Met Trp Ile Lys Glu Glu Val Ser Ser Ala
 1905 1910 1915 1920
 Arg Ala Ser Ile Ile Asp Lys Trp Arg Lys Phe Gln Gly Met Asn Gln
 1925 1930 1935
 Glu Gln Ala Met Ala Lys Tyr Met Ala Leu Ile Lys Glu Trp Pro Gly
 1940 1945 1950
 Tyr Gly Ser Thr Leu Phe Asp Val Glu Cys Lys Glu Gly Gly Phe Pro
 1955 1960 1965
 Gln Glu Leu Trp Leu Gly Val Ser Ala Asp Ala Val Ser Val Tyr Lys
 1970 1975 1980
 Arg Gly Glu Gly Arg Pro Leu Glu Val Phe Gln Tyr Glu His Ile Leu
 1985 1990 1995 2000
 Ser Phe Gly Ala Pro Leu Ala Asn Thr Tyr Lys Ile Val Val Asp Glu
 2005 2010 2015
 Arg Glu Leu Leu Phe Glu Thr Ser Glu Val Val Asp Val Ala Lys Leu
 2020 2025 2030
 Met Lys Ala Tyr Ile Ser Met Ile Val Lys Lys Arg Tyr Ser Thr Thr
 2035 2040 2045
 Arg Ser Ala Ser Ser Gln Gly Ser Ser Arg
 2050 2055

<210> 121
 <211> 461
 <212> PRT
 <213> Homo sapiens

<400> 121
 Met Glu Lys Lys Cys Thr Leu Tyr Phe Leu Val Leu Leu Pro Phe Phe
 1 5 10 15
 Met Ile Leu Val Thr Ala Glu Leu Glu Glu Ser Pro Glu Asp Ser Ile
 20 25 30
 Gln Leu Gly Val Thr Arg Asn Lys Ile Met Thr Ala Gln Tyr Glu Cys
 35 40 45
 Tyr Gln Lys Ile Met Gln Asp Pro Ile Gln Gln Ala Glu Gly Val Tyr
 50 55 60
 Cys Asn Arg Thr Trp Asp Gly Trp Leu Cys Trp Asn Asp Val Ala Ala
 65 70 75 80
 Gly Thr Glu Ser Met Gln Leu Cys Pro Asp Tyr Phe Gln Asp Phe Asp
 85 90 95
 Pro Ser Glu Lys Val Thr Lys Ile Cys Asp Gln Asp Gly Asn Trp Phe
 100 105 110
 Arg His Pro Ala Ser Asn Arg Thr Trp Thr Asn Tyr Thr Gln Cys Asn
 115 120 125
 Val Asn Thr His Glu Lys Val Lys Thr Ala Leu Asn Leu Phe Tyr Leu
 130 135 140
 Thr Ile Ile Gly His Gly Leu Ser Ile Ala Ser Leu Leu Ile Ser Leu
 145 150 155 160
 Gly Ile Phe Phe Tyr Phe Lys Ser Leu Ser Cys Gln Arg Ile Thr Leu
 165 170 175
 His Lys Asn Leu Phe Phe Ser Phe Val Cys Asn Ser Val Val Thr Ile
 180 185 190
 Ile His Leu Thr Ala Val Ala Asn Gln Ala Leu Val Ala Thr Asn
 195 200 205
 Pro Val Ser Cys Lys Val Ser Gln Phe Ile His Leu Tyr Leu Met Gly
 210 215 220

Cys Asn Tyr Phe Trp Met Leu Cys Glu Gly Ile Tyr Leu His Thr Leu
 225 230 235 240
 Ile Val Val Ala Val Phe Ala Glu Lys Gln His Leu Met Trp Tyr Tyr
 245 250 255
 Phe Leu Gly Trp Gly Phe Pro Leu Ile Pro Ala Cys Ile His Ala Ile
 260 265 270
 Ala Arg Ser Leu Tyr Tyr Asn Asp Asn Cys Trp Ile Ser Ser Asp Thr
 275 280 285
 His Leu Leu Tyr Ile Ile His Gly Pro Ile Cys Ala Ala Leu Leu Val
 290 295 300
 Asn Leu Phe Phe Leu Leu Asn Ile Val Arg Val Leu Ile Thr Lys Leu
 305 310 315 320
 Lys Val Thr His Gln Ala Glu Ser Asn Leu Tyr Met Lys Ala Val Arg
 325 330 335
 Ala Thr Leu Ile Leu Val Pro Leu Leu Gly Ile Glu Phe Val Leu Ile
 340 345 350
 Pro Trp Arg Pro Glu Gly Lys Ile Ala Glu Glu Val Tyr Asp Tyr Ile
 355 360 365
 Met His Ile Leu Met His Phe Gln Gly Leu Leu Val Ser Thr Ile Phe
 370 375 380
 Cys Phe Phe Asn Gly Glu Val Gln Ala Ile Leu Arg Arg Asn Trp Asn
 385 390 395 400
 Gln Tyr Lys Ile Gln Phe Gly Asn Ser Phe Ser Asn Ser Glu Ala Leu
 405 410 415
 Arg Ser Ala Ser Tyr Thr Val Ser Thr Ile Ser Asp Gly Pro Gly Tyr
 420 425 430
 Ser His Asp Cys Pro Ser Glu His Leu Asn Gly Lys Ser Ile His Asp
 435 440 445
 Ile Glu Asn Val Leu Leu Lys Pro Glu Asn Leu Tyr Asn
 450 455 460

<210> 122
 <211> 610
 <212> PRT
 <213> Homo sapiens

<400> 122
 Met Ile Ala Ser Gln Phe Leu Ser Ala Leu Thr Leu Val Leu Leu Ile
 1 5 10 15
 Lys Glu Ser Gly Ala Trp Ser Tyr Asn Thr Ser Thr Glu Ala Met Thr
 20 25 30
 Tyr Asp Glu Ala Ser Ala Tyr Cys Gln Gln Arg Tyr Thr His Leu Val
 35 40 45
 Ala Ile Gln Asn Lys Glu Glu Ile Glu Tyr Leu Asn Ser Ile Leu Ser
 50 55 60
 Tyr Ser Pro Ser Tyr Tyr Trp Ile Gly Ile Arg Lys Val Asn Asn Val
 65 70 75 80
 Trp Val Trp Val Gly Thr Gln Lys Pro Leu Thr Glu Glu Ala Lys Asn
 85 90 95
 Trp Ala Pro Gly Glu Pro Asn Asn Arg Gln Lys Asp Glu Asp Cys Val
 100 105 110
 Glu Ile Tyr Ile Lys Arg Glu Lys Asp Val Gly Met Trp Asn Asp Glu
 115 120 125
 Arg Cys Ser Lys Lys Lys Leu Ala Leu Cys Tyr Thr Ala Ala Cys Thr
 130 135 140
 Asn Thr Ser Cys Ser Gly His Gly Glu Cys Val Glu Thr Ile Asn Asn
 145 150 155 160
 Tyr Thr Cys Lys Cys Asp Pro Gly Phe Ser Gly Leu Lys Cys Glu Gln
 165 170 175
 Ile Val Asn Cys Thr Ala Leu Glu Ser Pro Glu His Gly Ser Leu Val
 180 185 190

Cys	Ser	His	Pro	Leu	Gly	Asn	Phe	Ser	Tyr	Asn	Ser	Ser	Cys	Ser	Ile
		195					200						205		
Ser	Cys	Asp	Arg	Gly	Tyr	Leu	Pro	Ser	Ser	Met	Glu	Thr	Met	Gln	Cys
	210					215					220				
Met	Ser	Ser	Gly	Glu	Trp	Ser	Ala	Pro	Ile	Pro	Ala	Cys	Asn	Val	Val
225					230					235					240
Glu	Cys	Asp	Ala	Val	Thr	Asn	Pro	Ala	Asn	Gly	Phe	Val	Glu	Cys	Phe
			245						250					255	
Gln	Asn	Pro	Gly	Ser	Phe	Pro	Trp	Asn	Thr	Thr	Cys	Thr	Phe	Asp	Cys
		260						265					270		
Glu	Glu	Gly	Phe	Glu	Leu	Met	Gly	Ala	Gln	Ser	Leu	Gln	Cys	Thr	Ser
		275					280					285			
Ser	Gly	Asn	Trp	Asp	Asn	Glu	Lys	Pro	Thr	Cys	Lys	Ala	Val	Thr	Cys
	290					295					300				
Arg	Ala	Val	Arg	Gln	Pro	Gln	Asn	Gly	Ser	Val	Arg	Cys	Ser	His	Ser
305					310					315					320
Pro	Ala	Gly	Glu	Phe	Thr	Phe	Lys	Ser	Ser	Cys	Asn	Phe	Thr	Cys	Glu
			325						330					335	
Glu	Gly	Phe	Met	Leu	Gln	Gly	Pro	Ala	Gln	Val	Glu	Cys	Thr	Thr	Gln
			340					345					350		
Gly	Gln	Trp	Thr	Gln	Gln	Ile	Pro	Val	Cys	Glu	Ala	Phe	Gln	Cys	Thr
		355					360					365			
Ala	Leu	Ser	Asn	Pro	Glu	Arg	Gly	Tyr	Met	Asn	Cys	Leu	Pro	Ser	Ala
	370					375					380				
Ser	Gly	Ser	Phe	Arg	Tyr	Gly	Ser	Ser	Cys	Glu	Phe	Ser	Cys	Glu	Gln
385					390					395					400
Gly	Phe	Val	Leu	Lys	Gly	Ser	Lys	Arg	Leu	Gln	Cys	Gly	Pro	Thr	Gly
			405						410					415	
Glu	Trp	Asp	Asn	Glu	Lys	Pro	Thr	Cys	Glu	Ala	Val	Arg	Cys	Asp	Ala
			420					425					430		
Val	His	Gln	Pro	Pro	Lys	Gly	Leu	Val	Arg	Cys	Ala	His	Ser	Pro	Ile
		435					440					445			
Gly	Glu	Phe	Thr	Tyr	Lys	Ser	Ser	Cys	Ala	Phe	Ser	Cys	Glu	Glu	Gly
	450					455				460					
Phe	Glu	Leu	Tyr	Gly	Ser	Thr	Gln	Leu	Glu	Cys	Thr	Ser	Gln	Gly	Gln
465					470					475					480
Trp	Thr	Glu	Glu	Val	Pro	Ser	Cys	Gln	Val	Val	Lys	Cys	Ser	Ser	Leu
			485						490					495	
Ala	Val	Pro	Gly	Lys	Ile	Asn	Met	Ser	Cys	Ser	Gly	Glu	Pro	Val	Phe
			500					505					510		
Gly	Thr	Val	Cys	Lys	Phe	Ala	Cys	Pro	Glu	Gly	Trp	Thr	Leu	Asn	Gly
		515					520					525			
Ser	Ala	Ala	Arg	Thr	Cys	Gly	Ala	Thr	Gly	His	Trp	Ser	Gly	Leu	Leu
	530					535					540				
Pro	Thr	Cys	Glu	Ala	Pro	Thr	Glu	Ser	Asn	Ile	Pro	Leu	Val	Ala	Gly
545					550					555					560
Leu	Ser	Ala	Ala	Gly	Leu	Ser	Leu	Leu	Thr	Leu	Ala	Pro	Phe	Leu	Leu
			565						570					575	
Trp	Leu	Arg	Lys	Cys	Leu	Arg	Lys	Ala	Lys	Lys	Phe	Val	Pro	Ala	Ser
			580					585					590		
Ser	Cys	Gln	Ser	Leu	Glu	Ser	Asp	Gly	Ser	Tyr	Gln	Lys	Pro	Ser	Tyr
		595					600					605			
Ile	Leu														
	610														

<210> 123
 <211> 352
 <212> PRT
 <213> Homo sapiens

<400> 123
 Met Glu Gly Ile Ser Ile Tyr Thr Ser Asp Asn Tyr Thr Glu Glu Met
 1 5 10 15
 Gly Ser Gly Asp Tyr Asp Ser Met Lys Glu Pro Cys Phe Arg Glu Glu
 20 25 30
 Asn Ala Asn Phe Asn Lys Ile Phe Leu Pro Thr Ile Tyr Ser Ile Ile
 35 40 45
 Phe Leu Thr Gly Ile Val Gly Asn Gly Leu Val Ile Leu Val Met Gly
 50 55 60
 Tyr Gln Lys Lys Leu Arg Ser Met Thr Asp Lys Tyr Arg Leu His Leu
 65 70 75 80
 Ser Val Ala Asp Leu Leu Phe Val Ile Thr Leu Pro Phe Trp Ala Val
 85 90 95
 Asp Ala Val Ala Asn Trp Tyr Phe Gly Asn Phe Leu Cys Lys Ala Val
 100 105 110
 His Val Ile Tyr Thr Val Asn Leu Tyr Ser Ser Val Leu Ile Leu Ala
 115 120 125
 Phe Ile Ser Leu Asp Arg Tyr Leu Ala Ile Val His Ala Thr Asn Ser
 130 135 140
 Gln Arg Pro Arg Lys Leu Leu Ala Glu Lys Val Val Tyr Val Gly Val
 145 150 155 160
 Trp Ile Pro Ala Leu Leu Leu Thr Ile Pro Asp Phe Ile Phe Ala Asn
 165 170 175
 Val Ser Glu Ala Asp Asp Arg Tyr Ile Cys Asp Arg Phe Tyr Pro Asn
 180 185 190
 Asp Leu Trp Val Val Val Phe Gln Phe Gln His Ile Met Val Gly Leu
 195 200 205
 Ile Leu Pro Gly Ile Val Ile Leu Ser Cys Tyr Cys Ile Ile Ile Ser
 210 215 220
 Lys Leu Ser His Ser Lys Gly His Gln Lys Arg Lys Ala Leu Lys Thr
 225 230 235 240
 Thr Val Ile Leu Ile Leu Ala Phe Phe Ala Cys Trp Leu Pro Tyr Tyr
 245 250 255
 Ile Gly Ile Ser Ile Asp Ser Phe Ile Leu Leu Glu Ile Ile Lys Gln
 260 265 270
 Gly Cys Glu Phe Glu Asn Thr Val His Lys Trp Ile Ser Ile Thr Glu
 275 280 285
 Ala Leu Ala Phe Phe His Cys Cys Leu Asn Pro Ile Leu Tyr Ala Phe
 290 295 300
 Leu Gly Ala Lys Phe Lys Thr Ser Ala Gln His Ala Leu Thr Ser Val
 305 310 315 320
 Ser Arg Gly Ser Ser Leu Lys Ile Leu Ser Lys Gly Lys Arg Gly Gly
 325 330 335
 His Ser Ser Val Ser Thr Glu Ser Glu Ser Ser Ser Phe His Ser Ser
 340 345 350

<210> 124
 <211> 184
 <212> PRT
 <213> Homo sapiens

<400> 124
 Met Lys Ser Val Leu Leu Leu Thr Thr Leu Leu Val Pro Ala His Leu
 1 5 10 15
 Val Ala Ala Trp Ser Asn Asn Tyr Ala Val Asp Cys Pro Gln His Cys
 20 25 30
 Asp Ser Ser Glu Cys Lys Ser Ser Pro Arg Cys Lys Arg Thr Val Leu
 35 40 45
 Asp Asp Cys Gly Cys Cys Arg Val Cys Ala Ala Gly Arg Gly Glu Thr
 50 55 60

Cys Tyr Arg Thr Val Ser Gly Met Asp Gly Met Lys Cys Gly Pro Gly
65 70 75 80
Leu Arg Cys Gln Pro Ser Asn Gly Glu Asp Pro Phe Gly Glu Glu Phe
85 90 95
Gly Ile Cys Lys Asp Cys Pro Tyr Gly Thr Phe Gly Met Asp Cys Arg
100 105 110
Glu Thr Cys Asn Cys Gln Ser Gly Ile Cys Asp Arg Gly Thr Gly Lys
115 120 125
Cys Leu Lys Phe Pro Phe Phe Gln Tyr Ser Val Thr Lys Ser Ser Asn
130 135 140
Arg Phe Val Ser Leu Thr Glu His Asp Met Ala Ser Gly Asp Gly Asn
145 150 155 160
Ile Val Arg Glu Glu Val Val Lys Glu Asn Ala Ala Gly Ser Pro Val
165 170 175
Met Arg Lys Trp Leu Asn Pro Arg
180

<210> 125
<211> 1496
<212> PRT
<213> Homo sapiens

<400> 125
Ser Arg Pro Trp Trp Leu Arg Ala Ser Glu Arg Pro Ser Ala Pro Ser
1 5 10 15
Ala Met Ala Lys Arg Ser Arg Gly Pro Gly Arg Arg Cys Leu Leu Ala
20 25 30
Leu Val Leu Phe Cys Ala Trp Gly Thr Leu Ala Val Val Ala Gln Lys
35 40 45
Pro Gly Ala Gly Cys Pro Ser Arg Cys Leu Cys Phe Arg Thr Thr Val
50 55 60
Arg Cys Met His Leu Leu Leu Glu Ala Val Pro Ala Val Ala Pro Gln
65 70 75 80
Thr Ser Ile Leu Asp Leu Arg Phe Asn Arg Ile Arg Glu Ile Gln Pro
85 90 95
Gly Ala Phe Arg Arg Leu Arg Asn Leu Asn Thr Leu Leu Leu Asn Asn
100 105 110
Asn Gln Ile Lys Arg Ile Pro Ser Gly Ala Phe Glu Asp Leu Glu Asn
115 120 125
Leu Lys Tyr Leu Tyr Leu Tyr Lys Asn Glu Ile Gln Ser Ile Asp Arg
130 135 140
Gln Ala Phe Lys Gly Leu Ala Ser Leu Glu Gln Leu Tyr Leu His Phe
145 150 155 160
Asn Gln Ile Glu Thr Leu Asp Pro Asp Ser Phe Gln His Leu Pro Lys
165 170 175
Leu Glu Arg Leu Phe Leu His Asn Asn Arg Ile Thr His Leu Val Pro
180 185 190
Gly Thr Phe Asn His Leu Glu Ser Met Lys Arg Leu Arg Leu Asp Ser
195 200 205
Asn Thr Leu His Cys Asp Cys Glu Ile Leu Trp Leu Ala Asp Leu Leu
210 215 220
Lys Thr Tyr Ala Glu Ser Gly Asn Ala Gln Ala Ala Ala Ile Cys Glu
225 230 235 240
Tyr Pro Arg Arg Ile Gln Gly Arg Ser Val Ala Thr Ile Thr Pro Glu
245 250 255
Glu Leu Asn Cys Glu Arg Pro Arg Ile Thr Ser Glu Pro Gln Asp Ala
260 265 270
Asp Val Thr Ser Gly Asn Thr Val Tyr Phe Thr Cys Arg Ala Glu Gly
275 280 285
Asn Pro Lys Pro Glu Ile Ile Trp Leu Arg Asn Asn Asn Glu Leu Ser
290 295 300

Met	Lys	Thr	Asp	Ser	Arg	Leu	Asn	Leu	Leu	Asp	Asp	Gly	Thr	Leu	Met
305					310					315					320
Ile	Gln	Asn	Thr	Gln	Glu	Thr	Asp	Gln	Gly	Ile	Tyr	Gln	Cys	Met	Ala
				325					330						335
Lys	Asn	Val	Ala	Gly	Glu	Val	Lys	Thr	Gln	Glu	Val	Thr	Leu	Arg	Tyr
			340					345					350		
Phe	Gly	Ser	Pro	Ala	Arg	Pro	Thr	Phe	Val	Ile	Gln	Pro	Gln	Asn	Thr
		355					360					365			
Glu	Val	Leu	Val	Gly	Glu	Ser	Val	Thr	Leu	Glu	Cys	Ser	Ala	Thr	Gly
	370					375					380				
His	Pro	Pro	Pro	Arg	Ile	Ser	Trp	Thr	Arg	Gly	Asp	Arg	Thr	Pro	Leu
385					390					395					400
Pro	Val	Asp	Pro	Arg	Val	Asn	Ile	Thr	Pro	Ser	Gly	Gly	Leu	Tyr	Ile
				405					410					415	
Gln	Asn	Val	Val	Gln	Gly	Asp	Ser	Gly	Glu	Tyr	Ala	Cys	Ser	Ala	Thr
			420					425					430		
Asn	Asn	Ile	Asp	Ser	Val	His	Ala	Thr	Ala	Phe	Ile	Ile	Val	Gln	Ala
		435					440					445			
Leu	Pro	Gln	Phe	Thr	Val	Thr	Pro	Gln	Asp	Arg	Val	Val	Ile	Glu	Gly
	450					455					460				
Gln	Thr	Val	Asp	Phe	Gln	Cys	Glu	Ala	Lys	Gly	Asn	Pro	Pro	Pro	Val
465					470					475					480
Ile	Ala	Trp	Thr	Lys	Gly	Gly	Ser	Gln	Leu	Ser	Val	Asp	Arg	Arg	His
				485					490					495	
Leu	Val	Leu	Ser	Ser	Gly	Thr	Leu	Arg	Ile	Ser	Gly	Val	Ala	Leu	His
			500					505					510		
Asp	Gln	Gly	Gln	Tyr	Glu	Cys	Gln	Ala	Val	Asn	Ile	Ile	Gly	Ser	Gln
		515					520					525			
Lys	Val	Val	Ala	His	Leu	Thr	Val	Gln	Pro	Arg	Val	Thr	Pro	Val	Phe
	530					535					540				
Ala	Ser	Ile	Pro	Ser	Asp	Thr	Thr	Val	Glu	Val	Gly	Ala	Asn	Val	Gln
545					550					555					560
Leu	Pro	Cys	Ser	Ser	Gln	Gly	Glu	Pro	Glu	Pro	Ala	Ile	Thr	Trp	Asn
				565				570						575	
Lys	Asp	Gly	Val	Gln	Val	Thr	Glu	Ser	Gly	Lys	Phe	His	Ile	Ser	Pro
			580					585					590		
Glu	Gly	Phe	Leu	Thr	Ile	Asn	Asp	Val	Gly	Pro	Ala	Asp	Ala	Gly	Arg
		595					600					605			
Tyr	Glu	Cys	Val	Ala	Arg	Asn	Thr	Ile	Gly	Ser	Ala	Ser	Val	Ser	Met
	610					615					620				
Val	Leu	Ser	Val	Asn	Val	Pro	Asp	Val	Ser	Arg	Asn	Gly	Asp	Pro	Phe
625					630					635					640
Val	Ala	Thr	Ser	Ile	Val	Glu	Ala	Ile	Ala	Thr	Val	Asp	Arg	Ala	Ile
				645					650					655	
Asn	Ser	Thr	Arg	Thr	His	Leu	Phe	Asp	Ser	Arg	Pro	Arg	Ser	Pro	Asn
			660					665					670		
Asp	Leu	Leu	Ala	Leu	Phe	Arg	Tyr	Pro	Arg	Asp	Pro	Tyr	Thr	Val	Glu
		675					680					685			
Gln	Ala	Arg	Ala	Gly	Glu	Ile	Phe	Glu	Arg	Thr	Leu	Gln	Leu	Ile	Gln
	690					695					700				
Glu	His	Val	Gln	His	Gly	Leu	Met	Val	Asp	Leu	Asn	Gly	Thr	Ser	Tyr
705					710					715					720
His	Tyr	Asn	Asp	Leu	Val	Ser	Pro	Gln	Tyr	Leu	Asn	Leu	Ile	Ala	Asn
				725					730					735	
Leu	Ser	Gly	Cys	Thr	Ala	His	Arg	Arg	Val	Asn	Asn	Cys	Ser	Asp	Met
			740					745					750		
Cys	Phe	His	Gln	Lys	Tyr	Arg	Thr	His	Asp	Gly	Thr	Cys	Asn	Asn	Leu
		755					760					765			
Gln	His	Pro	Met	Trp	Gly	Ala	Ser	Leu	Thr	Ala	Phe	Glu	Arg	Leu	Leu
	770						775					780			

Lys	Ser	Val	Tyr	Glu	Asn	Gly	Phe	Asn	Thr	Pro	Arg	Gly	Ile	Asn	Pro	785	790	795	800
His	Arg	Leu	Tyr	Asn	Gly	His	Ala	Leu	Pro	Met	Pro	Arg	Leu	Val	Ser	805	810		815
Thr	Thr	Leu	Ile	Gly	Thr	Glu	Thr	Val	Thr	Pro	Asp	Glu	Gln	Phe	Thr	820	825		830
His	Met	Leu	Met	Gln	Trp	Gly	Gln	Phe	Leu	Asp	His	Asp	Leu	Asp	Ser	835	840	845	
Thr	Val	Val	Ala	Leu	Ser	Gln	Ala	Arg	Phe	Ser	Asp	Gly	Gln	His	Cys	850	855	860	
Ser	Asn	Val	Cys	Ser	Asn	Asp	Pro	Pro	Cys	Phe	Ser	Val	Met	Ile	Pro	865	870	875	880
Pro	Asn	Asp	Ser	Arg	Ala	Arg	Ser	Gly	Ala	Arg	Cys	Met	Phe	Phe	Val	885	890		895
Arg	Ser	Ser	Pro	Val	Cys	Gly	Ser	Gly	Met	Thr	Ser	Leu	Leu	Met	Asn	900	905		910
Ser	Val	Tyr	Pro	Arg	Glu	Gln	Ile	Asn	Gln	Leu	Thr	Ser	Tyr	Ile	Asp	915	920	925	
Ala	Ser	Asn	Val	Tyr	Gly	Ser	Thr	Glu	His	Glu	Ala	Arg	Ser	Ile	Arg	930	935	940	
Asp	Leu	Ala	Ser	His	Arg	Gly	Leu	Leu	Arg	Gln	Gly	Ile	Val	Gln	Arg	945	950	955	960
Ser	Gly	Lys	Pro	Leu	Leu	Pro	Phe	Ala	Thr	Gly	Pro	Pro	Thr	Glu	Cys	965	970		975
Met	Arg	Asp	Glu	Asn	Glu	Ser	Pro	Ile	Pro	Cys	Phe	Leu	Ala	Gly	Asp	980	985	990	
His	Arg	Ala	Asn	Glu	Gln	Leu	Gly	Leu	Thr	Ser	Met	His	Thr	Leu	Trp	995	1000	1005	
Phe	Arg	Glu	His	Asn	Arg	Ile	Ala	Thr	Glu	Leu	Leu	Lys	Leu	Asn	Pro	1010	1015	1020	
His	Trp	Asp	Gly	Asp	Thr	Ile	Tyr	Tyr	Glu	Thr	Arg	Lys	Ile	Val	Gly	1025	1030	1035	1040
Ala	Glu	Ile	Gln	His	Ile	Thr	Tyr	Gln	His	Trp	Leu	Pro	Lys	Ile	Leu	1045	1050		1055
Gly	Glu	Val	Gly	Met	Arg	Thr	Leu	Gly	Glu	Tyr	His	Gly	Tyr	Asp	Pro	1060	1065	1070	
Gly	Ile	Asn	Ala	Gly	Ile	Phe	Asn	Ala	Phe	Ala	Thr	Ala	Ala	Phe	Arg	1075	1080	1085	
Phe	Gly	His	Thr	Leu	Val	Asn	Pro	Leu	Leu	Tyr	Arg	Leu	Asp	Glu	Asn	1090	1095	1100	
Phe	Gln	Pro	Ile	Ala	Gln	Asp	His	Leu	Pro	Leu	His	Lys	Ala	Phe	Phe	1105	1110	1115	1120
Ser	Pro	Phe	Arg	Ile	Val	Asn	Glu	Gly	Gly	Ile	Asp	Pro	Leu	Leu	Arg	1125	1130		1135
Gly	Leu	Phe	Gly	Val	Ala	Gly	Lys	Met	Arg	Val	Pro	Ser	Gln	Leu	Leu	1140	1145	1150	
Asn	Thr	Glu	Leu	Thr	Glu	Arg	Leu	Phe	Ser	Met	Ala	His	Thr	Val	Ala	1155	1160	1165	
Leu	Asp	Leu	Ala	Ala	Ile	Asn	Ile	Gln	Arg	Gly	Arg	Asp	His	Gly	Ile	1170	1175	1180	
Pro	Pro	Tyr	His	Asp	Tyr	Arg	Val	Tyr	Cys	Asn	Leu	Ser	Ala	Ala	His	1185	1190	1195	1200
Thr	Phe	Glu	Asp	Leu	Lys	Asn	Glu	Ile	Lys	Asn	Pro	Glu	Ile	Arg	Glu	1205	1210		1215
Lys	Leu	Lys	Arg	Leu	Tyr	Gly	Ser	Thr	Leu	Asn	Ile	Asp	Leu	Phe	Pro	1220	1225	1230	
Ala	Leu	Val	Val	Glu	Asp	Leu	Val	Pro	Gly	Ser	Arg	Leu	Gly	Pro	Thr	1235	1240	1245	
Leu	Met	Cys	Leu	Leu	Ser	Thr	Gln	Phe	Lys	Arg	Leu	Arg	Asp	Gly	Asp	1250	1255	1260	

Arg Leu Trp Tyr Glu Asn Pro Gly Val Phe Ser Pro Ala Gln Leu Thr
 1265 1270 1275 1280
 Gln Ile Lys Gln Thr Ser Leu Ala Arg Ile Leu Cys Asp Asn Ala Asp
 1285 1290 1295
 Asn Ile Thr Arg Val Gln Ser Asp Val Phe Arg Val Ala Glu Phe Pro
 1300 1305 1310
 His Gly Tyr Gly Ser Cys Asp Glu Ile Pro Arg Val Asp Leu Arg Val
 1315 1320 1325
 Trp Gln Asp Cys Cys Glu Asp Cys Arg Thr Arg Gly Gln Phe Asn Ala
 1330 1335 1340
 Phe Ser Tyr His Phe Arg Gly Arg Arg Ser Leu Glu Phe Ser Tyr Gln
 1345 1350 1355 1360
 Glu Asp Lys Pro Thr Lys Lys Thr Arg Pro Arg Lys Ile Pro Ser Val
 1365 1370 1375
 Gly Arg Gln Gly Glu His Leu Ser Asn Ser Thr Ser Ala Phe Ser Thr
 1380 1385 1390
 Arg Ser Asp Ala Ser Gly Thr Asn Asp Phe Arg Glu Phe Val Leu Glu
 1395 1400 1405
 Met Gln Lys Thr Ile Thr Asp Leu Arg Thr Gln Ile Lys Lys Leu Glu
 1410 1415 1420
 Ser Arg Leu Ser Thr Thr Glu Cys Val Asp Ala Gly Gly Glu Ser His
 1425 1430 1435 1440
 Ala Asn Asn Thr Lys Trp Lys Lys Asp Ala Cys Thr Ile Cys Glu Cys
 1445 1450 1455
 Lys Asp Gly Gln Val Thr Cys Phe Val Glu Ala Cys Pro Pro Ala Thr
 1460 1465 1470
 Cys Ala Val Pro Val Asn Ile Pro Gly Ala Cys Cys Pro Val Cys Leu
 1475 1480 1485
 Gln Lys Arg Ala Glu Glu Lys Pro
 1490 1495

<210> 126
 <211> 1165
 <212> PRT
 <213> Homo sapiens

<400> 126
 Met Ala Asn Asp Ser Pro Ala Lys Ser Leu Val Asp Ile Asp Leu Ser
 1 5 10 15
 Ser Leu Arg Asp Pro Ala Gly Ile Phe Glu Leu Val Glu Val Val Gly
 20 25 30
 Asn Gly Thr Tyr Gly Gln Val Tyr Lys Gly Arg His Val Lys Thr Gly
 35 40 45
 Gln Leu Ala Ala Ile Lys Val Met Asp Val Thr Glu Asp Glu Glu Glu
 50 55 60
 Glu Ile Lys Leu Glu Ile Asn Met Leu Lys Lys Tyr Ser His His Arg
 65 70 75 80
 Asn Ile Ala Thr Tyr Tyr Gly Ala Phe Ile Lys Lys Ser Pro Pro Gly
 85 90 95
 His Asp Asp Gln Leu Trp Leu Val Met Glu Phe Cys Gly Ala Gly Ser
 100 105 110
 Ile Thr Asp Leu Val Lys Asn Thr Lys Gly Asn Thr Leu Lys Glu Asp
 115 120 125
 Trp Ile Ala Tyr Ile Ser Arg Glu Ile Leu Arg Gly Leu Ala His Leu
 130 135 140
 His Ile His His Val Ile His Arg Asp Ile Lys Gly Gln Asn Val Leu
 145 150 155 160
 Leu Thr Glu Asn Ala Glu Val Lys Leu Val Asp Phe Gly Val Ser Ala
 165 170 175
 Gln Leu Asp Arg Thr Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro
 180 185 190

Tyr	Trp	Met	Ala	Pro	Glu	Val	Ile	Ala	Cys	Asp	Glu	Asn	Pro	Asp	Ala	195	200	205
Thr	Tyr	Asp	Tyr	Arg	Ser	Asp	Leu	Trp	Ser	Cys	Gly	Ile	Thr	Ala	Ile	210	215	220
Glu	Met	Ala	Glu	Gly	Ala	Pro	Pro	Leu	Cys	Asp	Met	His	Pro	Met	Arg	225	230	235
Ala	Leu	Phe	Leu	Ile	Pro	Arg	Asn	Pro	Pro	Pro	Arg	Leu	Lys	Ser	Lys	245	250	255
Lys	Trp	Ser	Lys	Lys	Phe	Phe	Ser	Phe	Ile	Glu	Gly	Cys	Leu	Val	Lys	260	265	270
Asn	Tyr	Met	Gln	Arg	Pro	Ser	Thr	Glu	Gln	Leu	Leu	Lys	His	Pro	Phe	275	280	285
Ile	Arg	Asp	Gln	Pro	Asn	Glu	Arg	Gln	Val	Arg	Ile	Gln	Leu	Lys	Asp	290	295	300
His	Ile	Asp	Arg	Thr	Arg	Lys	Lys	Arg	Gly	Glu	Lys	Asp	Glu	Thr	Glu	305	310	315
Tyr	Glu	Tyr	Ser	Gly	Ser	Glu	Glu	Glu	Glu	Glu	Glu	Val	Pro	Glu	Gln	325	330	335
Glu	Gly	Glu	Pro	Ser	Ser	Ile	Val	Asn	Val	Pro	Gly	Glu	Ser	Thr	Leu	340	345	350
Arg	Arg	Asp	Phe	Leu	Arg	Leu	Gln	Gln	Glu	Asn	Lys	Glu	Arg	Ser	Glu	355	360	365
Ala	Leu	Arg	Arg	Gln	Gln	Leu	Leu	Gln	Glu	Gln	Gln	Leu	Arg	Glu	Gln	370	375	380
Glu	Glu	Tyr	Lys	Arg	Gln	Leu	Leu	Ala	Glu	Arg	Gln	Lys	Arg	Ile	Glu	385	390	395
Gln	Gln	Lys	Glu	Gln	Arg	Arg	Arg	Leu	Glu	Glu	Gln	Gln	Arg	Arg	Glu	405	410	415
Arg	Glu	Ala	Arg	Arg	Gln	Gln	Glu	Arg	Glu	Gln	Arg	Arg	Arg	Glu	Gln	420	425	430
Glu	Glu	Lys	Arg	Arg	Leu	Glu	Glu	Leu	Glu	Arg	Arg	Arg	Lys	Glu	Glu	435	440	445
Glu	Glu	Arg	Arg	Arg	Ala	Glu	Glu	Glu	Lys	Arg	Arg	Val	Glu	Arg	Glu	450	455	460
Gln	Glu	Tyr	Ile	Arg	Arg	Gln	Leu	Glu	Glu	Glu	Gln	Arg	His	Leu	Glu	465	470	475
Val	Leu	Gln	Gln	Gln	Leu	Leu	Gln	Glu	Gln	Ala	Met	Leu	Leu	His	Asp	485	490	495
His	Arg	Arg	Pro	His	Pro	Gln	His	Ser	Gln	Gln	Pro	Pro	Pro	Pro	Gln	500	505	510
Gln	Glu	Arg	Ser	Lys	Pro	Ser	Phe	His	Ala	Pro	Glu	Pro	Lys	Ala	His	515	520	525
Tyr	Glu	Pro	Ala	Asp	Arg	Ala	Arg	Glu	Val	Pro	Val	Arg	Thr	Thr	Ser	530	535	540
Arg	Ser	Pro	Val	Leu	Ser	Arg	Arg	Asp	Ser	Pro	Leu	Gln	Gly	Ser	Gly	545	550	555
Gln	Gln	Asn	Ser	Gln	Ala	Gly	Gln	Arg	Asn	Ser	Thr	Ser	Ile	Glu	Pro	565	570	575
Arg	Leu	Leu	Trp	Glu	Arg	Val	Glu	Lys	Leu	Val	Pro	Arg	Pro	Gly	Ser	580	585	590
Gly	Ser	Ser	Ser	Gly	Ser	Ser	Asn	Ser	Gly	Ser	Gln	Pro	Gly	Ser	His	595	600	605
Pro	Gly	Ser	Gln	Ser	Gly	Ser	Gly	Glu	Arg	Phe	Arg	Val	Arg	Ser	Ser	610	615	620
Ser	Lys	Ser	Glu	Gly	Ser	Pro	Ser	Gln	Arg	Leu	Glu	Asn	Ala	Val	Lys	625	630	635
Lys	Pro	Glu	Asp	Lys	Lys	Glu	Val	Phe	Arg	Pro	Leu	Lys	Pro	Ala	Gly	645	650	655
Glu	Val	Asp	Leu	Thr	Ala	Leu	Ala	Lys	Glu	Leu	Arg	Ala	Val	Glu	Asp	660	665	670

Val	Arg	Pro	Pro	His	Lys	Val	Thr	Asp	Tyr	Ser	Ser	Ser	Ser	Glu	Glu		
		675					680					685					
Ser	Gly	Thr	Thr	Asp	Glu	Glu	Asp	Asp	Asp	Val	Glu	Gln	Glu	Gly	Ala		
	690					695					700						
Asp	Glu	Ser	Thr	Ser	Gly	Pro	Glu	Asp	Thr	Arg	Ala	Ala	Ser	Ser	Leu		
705					710					715					720		
Asn	Leu	Ser	Asn	Gly	Glu	Thr	Glu	Ser	Val	Lys	Thr	Met	Ile	Val	His		
				725					730					735			
Asp	Asp	Val	Glu	Ser	Glu	Pro	Ala	Met	Thr	Pro	Ser	Lys	Glu	Gly	Thr		
		740						745					750				
Leu	Ile	Val	Arg	Gln	Thr	Gln	Ser	Ala	Ser	Ser	Thr	Leu	Gln	Lys	His		
		755					760					765					
Lys	Ser	Ser	Ser	Ser	Phe	Thr	Pro	Phe	Ile	Asp	Pro	Arg	Leu	Leu	Gln		
	770					775					780						
Ile	Ser	Pro	Ser	Ser	Gly	Thr	Thr	Val	Thr	Ser	Val	Val	Gly	Phe	Ser		
785					790					795					800		
Cys	Asp	Gly	Met	Arg	Pro	Glu	Ala	Ile	Arg	Gln	Asp	Pro	Thr	Arg	Lys		
				805					810					815			
Gly	Ser	Val	Val	Asn	Val	Asn	Pro	Thr	Asn	Thr	Arg	Pro	Gln	Ser	Asp		
			820					825					830				
Thr	Pro	Glu	Ile	Arg	Lys	Tyr	Lys	Lys	Arg	Phe	Asn	Ser	Glu	Ile	Leu		
		835					840					845					
Cys	Ala	Ala	Leu	Trp	Gly	Val	Asn	Leu	Leu	Val	Gly	Thr	Glu	Ser	Gly		
	850					855					860						
Leu	Met	Leu	Leu	Asp	Arg	Ser	Gly	Gln	Gly	Lys	Val	Tyr	Pro	Leu	Ile		
865				870						875					880		
Asn	Arg	Arg	Arg	Phe	Gln	Gln	Met	Asp	Val	Leu	Glu	Gly	Leu	Asn	Val		
				885					890					895			
Leu	Val	Thr	Ile	Ser	Gly	Lys	Lys	Asp	Lys	Leu	Arg	Val	Tyr	Tyr	Leu		
		900						905					910				
Ser	Trp	Leu	Arg	Asn	Lys	Ile	Leu	His	Asn	Asp	Pro	Glu	Val	Glu	Lys		
		915					920					925					
Lys	Gln	Gly	Trp	Thr	Thr	Val	Gly	Asp	Leu	Glu	Gly	Cys	Val	His	Tyr		
	930					935					940						
Lys	Val	Val	Lys	Tyr	Glu	Arg	Ile	Lys	Phe	Leu	Val	Ile	Ala	Leu	Lys		
945					950					955					960		
Ser	Ser	Val	Glu	Val	Tyr	Ala	Trp	Ala	Pro	Lys	Pro	Tyr	His	Lys	Phe		
				965					970					975			
Met	Ala	Phe	Lys	Ser	Phe	Gly	Glu	Leu	Val	His	Lys	Pro	Leu	Leu	Val		
		980						985					990				
Asp	Leu	Thr	Val	Glu	Glu	Gly	Gln	Arg	Leu	Lys	Val	Ile	Tyr	Gly	Ser		
		995					1000					1005					
Cys	Ala	Gly	Phe	His	Ala	Val	Asp	Val	Asp	Ser	Gly	Ser	Val	Tyr	Asp		
	1010					1015					1020						
Ile	Tyr	Leu	Pro	Thr	His	Val	Arg	Lys	Asn	Pro	His	Ser	Met	Ile	Gln		
1025					1030					1035					1040		
Cys	Ser	Ile	Lys	Pro	His	Ala	Ile	Ile	Ile	Leu	Pro	Asn	Thr	Asp	Gly		
				1045					1050					1055			
Met	Glu	Leu	Leu	Val	Cys	Tyr	Glu	Asp	Glu	Gly	Val	Tyr	Val	Asn	Thr		
		1060						1065					1070				
Tyr	Gly	Arg	Ile	Thr	Lys	Asp	Val	Val	Leu	Gln	Trp	Gly	Glu	Met	Pro		
		1075					1080					1085					
Thr	Ser	Val	Ala	Tyr	Ile	Arg	Ser	Asn	Gln	Thr	Met	Gly	Trp	Gly	Glu		
		1090				1095					1100						
Lys	Ala	Ile	Glu	Ile	Arg	Ser	Val	Glu	Thr	Gly	His	Leu	Asp	Gly	Val		
1105					1110					1115					1120		
Phe	Met	His	Lys	Arg	Ala	Gln	Arg	Leu	Lys	Phe	Leu	Cys	Glu	Arg	Asn		
				1125					1130					1135			
Asp	Lys	Val	Phe	Ala	Ser	Val	Arg	Ser	Gly	Gly	Ser	Ser	Gln	Val			
		1140					1145					1150					

Tyr Phe Met Thr Leu Gly Arg Thr Ser Leu Leu Ser Trp
 1155 1160 1165

<210> 127
 <211> 541
 <212> PRT
 <213> Homo sapiens

<400> 127
 Met Gly Ser Ser Glu Val Ser Ile Ile Pro Gly Leu Gln Lys Glu Glu
 1 5 10 15
 Lys Ala Ala Val Glu Arg Arg Arg Leu His Val Leu Lys Ala Leu Lys
 20 25 30
 Lys Leu Arg Ile Glu Ala Asp Glu Ala Pro Val Val Ala Val Leu Gly
 35 40 45
 Ser Gly Gly Gly Leu Arg Ala His Ile Ala Cys Leu Gly Val Leu Ser
 50 55 60
 Glu Met Lys Glu Gln Gly Leu Leu Asp Ala Val Thr Tyr Leu Ala Gly
 65 70 75 80
 Val Ser Gly Ser Thr Trp Ala Ile Ser Ser Leu Tyr Thr Asn Asp Gly
 85 90 95
 Asp Met Glu Ala Leu Glu Ala Asp Leu Lys His Arg Phe Thr Arg Gln
 100 105 110
 Glu Trp Asp Leu Ala Lys Ser Leu Gln Lys Thr Ile Gln Ala Ala Arg
 115 120 125
 Ser Glu Asn Tyr Ser Leu Thr Asp Phe Trp Ala Tyr Met Val Ile Ser
 130 135 140
 Lys Gln Thr Arg Glu Leu Pro Glu Ser His Leu Ser Asn Met Lys Lys
 145 150 155 160
 Pro Val Glu Glu Gly Thr Leu Pro Tyr Pro Ile Phe Ala Ala Ile Asp
 165 170 175
 Asn Asp Leu Gln Pro Ser Trp Gln Glu Ala Arg Ala Pro Glu Thr Trp
 180 185 190
 Phe Glu Phe Thr Pro His His Ala Gly Phe Ser Ala Leu Gly Ala Phe
 195 200 205
 Val Ser Ile Thr His Phe Gly Ser Lys Phe Lys Lys Gly Arg Leu Val
 210 215 220
 Arg Thr His Pro Glu Arg Asp Leu Thr Phe Leu Arg Gly Leu Trp Gly
 225 230 235 240
 Ser Ala Leu Gly Asn Thr Glu Val Ile Arg Glu Tyr Ile Phe Asp Gln
 245 250 255
 Leu Arg Asn Leu Thr Leu Lys Gly Leu Trp Arg Arg Ala Val Ala Asn
 260 265 270
 Ala Lys Ser Ile Gly His Leu Ile Phe Ala Arg Leu Leu Arg Leu Gln
 275 280 285
 Glu Ser Ser Gln Gly Glu His Pro Pro Pro Glu Asp Glu Gly Gly Glu
 290 295 300
 Pro Glu His Thr Trp Leu Thr Glu Met Leu Glu Asn Trp Thr Arg Thr
 305 310 315 320
 Ser Leu Glu Lys Gln Glu Gln Pro His Glu Asp Pro Glu Arg Lys Gly
 325 330 335
 Ser Leu Ser Asn Leu Met Asp Phe Val Lys Lys Thr Gly Ile Cys Ala
 340 345 350
 Ser Lys Trp Glu Trp Gly Thr Thr His Asn Phe Leu Tyr Lys His Gly
 355 360 365
 Gly Ile Arg Asp Lys Ile Met Ser Ser Arg Lys His Leu His Leu Val
 370 375 380
 Asp Ala Gly Leu Ala Ile Asn Thr Pro Phe Pro Leu Val Leu Pro Pro
 385 390 395 400
 Thr Arg Glu Val His Leu Ile Leu Ser Phe Asp Phe Ser Ala Gly Asp
 405 410 415

Pro Phe Glu Thr Ile Arg Ala Thr Thr Asp Tyr Cys Arg Arg His Lys
420 425 430
Ile Pro Phe Pro Gln Val Glu Glu Ala Glu Leu Asp Leu Trp Ser Lys
435 440 445
Ala Pro Ala Ser Cys Tyr Ile Leu Lys Gly Glu Thr Gly Pro Val Val
450 455 460
Ile His Phe Pro Leu Phe Asn Ile Asp Ala Cys Gly Gly Asp Ile Glu
465 470 475 480
Ala Trp Ser Asp Thr Tyr Asp Thr Phe Lys Leu Ala Asp Thr Tyr Thr
485 490 495
Leu Asp Val Val Val Leu Leu Leu Ala Leu Ala Lys Lys Asn Val Arg
500 505 510
Glu Asn Lys Lys Lys Ile Leu Arg Glu Leu Met Asn Val Ala Gly Leu
515 520 525
Tyr Tyr Pro Lys Asp Ser Ala Arg Ser Cys Cys Leu Ala
530 535 540

<210> 128
<211> 411
<212> PRT
<213> Homo sapiens

<400> 128
Met Gln Cys Ser Trp Lys Ala Val Leu Leu Leu Ala Leu Ala Ser Ile
1 5 10 15
Ala Ile Gln Tyr Thr Ala Ile Arg Thr Phe Thr Ala Lys Ser Phe His
20 25 30
Thr Cys Pro Gly Leu Ala Glu Ala Gly Leu Ala Glu Arg Leu Cys Glu
35 40 45
Glu Ser Pro Thr Phe Ala Tyr Asn Leu Ser Arg Lys Thr His Ile Leu
50 55 60
Ile Leu Ala Thr Thr Arg Ser Gly Ser Ser Phe Val Gly Gln Leu Phe
65 70 75 80
Asn Gln His Leu Asp Val Phe Tyr Leu Phe Glu Pro Leu Tyr His Val
85 90 95
Gln Asn Thr Leu Ile Pro Arg Phe Thr Gln Gly Lys Ser Pro Ala Asp
100 105 110
Arg Arg Val Met Leu Gly Ala Ser Arg Asp Leu Leu Arg Ser Leu Tyr
115 120 125
Asp Cys Asp Leu Tyr Phe Leu Glu Asn Tyr Ile Lys Pro Pro Pro Val
130 135 140
Asn His Thr Thr Asp Arg Ile Phe Arg Arg Gly Ala Ser Arg Val Leu
145 150 155 160
Cys Ser Arg Pro Val Cys Asp Pro Pro Gly Pro Ala Asp Leu Val Leu
165 170 175
Glu Glu Gly Asp Cys Val Arg Lys Cys Gly Leu Leu Asn Leu Thr Val
180 185 190
Ala Ala Glu Ala Cys Arg Glu Arg Ser His Val Ala Ile Lys Thr Val
195 200 205
Arg Val Pro Glu Val Asn Asp Leu Arg Ala Leu Val Glu Asp Pro Arg
210 215 220
Leu Asn Leu Lys Val Ile Gln Leu Val Arg Asp Pro Arg Gly Ile Leu
225 230 235 240
Ala Ser Arg Ser Glu Thr Phe Arg Asp Thr Tyr Arg Leu Trp Arg Leu
245 250 255
Trp Tyr Gly Thr Gly Arg Lys Pro Tyr Asn Leu Asp Val Thr Gln Leu
260 265 270
Thr Thr Val Cys Glu Asp Phe Ser Asn Ser Val Ser Thr Gly Leu Met
275 280 285
Arg Pro Pro Trp Leu Lys Gly Lys Tyr Met Leu Val Arg Tyr Glu Asp
290 295 300

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Leu Ala Arg Asn Pro Met Lys Lys Thr Glu Glu Ile Tyr Gly Phe Leu
305          310          315          320
Gly Ile Pro Leu Asp Ser His Val Ala Arg Trp Ile Gln Asn Asn Thr
          325          330          335
Arg Gly Asp Pro Thr Leu Gly Lys His Lys Tyr Gly Thr Val Arg Asn
          340          345          350
Ser Ala Ala Thr Ala Glu Lys Trp Arg Phe Arg Leu Ser Tyr Asp Ile
          355          360          365
Val Ala Phe Ala Gln Asn Ala Cys Gln Gln Val Leu Ala Gln Leu Gly
          370          375          380
Tyr Lys Ile Ala Ala Ser Glu Glu Glu Leu Lys Asn Pro Ser Val Ser
385          390          395          400
Leu Val Glu Glu Arg Asp Phe Arg Pro Phe Ser
          405          410

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<210> 129
<211> 1228
<212> PRT
<213> Homo sapiens

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          <400> 129
Met Lys Gly Ala Arg Leu Phe Val Leu Leu Ser Ser Leu Trp Ser Gly
1          5          10          15
Gly Ile Gly Leu Asn Asn Ser Lys His Ser Trp Thr Ile Pro Glu Asp
          20          25          30
Gly Asn Ser Gln Lys Thr Met Pro Ser Ala Ser Val Pro Pro Asn Lys
          35          40          45
Ile Gln Ser Leu Gln Ile Leu Pro Thr Thr Arg Val Met Ser Ala Glu
          50          55          60
Ile Ala Thr Thr Pro Glu Ala Arg Thr Ser Glu Asp Ser Leu Leu Lys
65          70          75          80
Ser Thr Leu Pro Pro Ser Glu Thr Ser Ala Pro Ala Glu Gly Val Arg
          85          90          95
Asn Gln Thr Leu Thr Ser Thr Glu Lys Ala Glu Gly Val Val Lys Leu
          100          105          110
Gln Asn Leu Thr Leu Pro Thr Asn Ala Ser Ile Lys Phe Asn Pro Gly
          115          120          125
Ala Glu Ser Val Val Leu Ser Asn Ser Thr Leu Lys Phe Leu Gln Ser
          130          135          140
Phe Ala Arg Lys Ser Asn Glu Gln Ala Thr Ser Leu Asn Thr Val Gly
145          150          155          160
Gly Thr Gly Gly Ile Gly Gly Val Gly Gly Thr Gly Gly Val Gly Asn
          165          170          175
Arg Ala Pro Arg Glu Thr Tyr Leu Ser Arg Gly Asp Ser Ser Ser Ser
          180          185          190
Gln Arg Thr Asp Tyr Gln Lys Ser Asn Phe Glu Thr Thr Arg Gly Lys
          195          200          205
Asn Trp Cys Ala Tyr Val His Thr Arg Leu Ser Pro Thr Val Thr Leu
          210          215          220
Asp Asn Gln Val Thr Tyr Val Pro Gly Gly Lys Gly Pro Cys Gly Trp
225          230          235          240
Thr Gly Gly Ser Cys Pro Gln Arg Ser Gln Lys Ile Ser Asn Pro Val
          245          250          255
Tyr Arg Met Gln His Lys Ile Val Thr Ser Leu Asp Trp Arg Cys Cys
          260          265          270
Pro Gly Tyr Ser Gly Pro Lys Cys Gln Leu Arg Ala Gln Glu Gln Gln
          275          280          285
Ser Leu Ile His Thr Asn Gln Ala Glu Ser His Thr Ala Val Gly Arg
          290          295          300
Gly Val Ala Glu Gln Gln Gln Gln Gly Cys Gly Asp Pro Glu Val
305          310          315          320

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Met	Gln	Lys	Met	Thr	Asp	Gln	Val	Asn	Tyr	Gln	Ala	Met	Lys	Leu	Thr		
				325					330					335			
Leu	Leu	Gln	Lys	Lys	Ile	Asp	Asn	Ile	Ser	Leu	Thr	Val	Asn	Asp	Val		
			340					345					350				
Arg	Asn	Thr	Tyr	Ser	Ser	Leu	Glu	Gly	Lys	Val	Ser	Glu	Asp	Lys	Ser		
		355					360					365					
Arg	Glu	Phe	Gln	Ser	Leu	Leu	Lys	Gly	Leu	Lys	Ser	Lys	Ser	Ile	Asn		
	370					375					380						
Val	Leu	Ile	Arg	Asp	Ile	Val	Arg	Glu	Gln	Phe	Lys	Ile	Phe	Gln	Asn		
385					390					395					400		
Asp	Met	Gln	Glu	Thr	Val	Ala	Gln	Leu	Phe	Lys	Thr	Val	Ser	Ser	Leu		
				405					410					415			
Ser	Glu	Asp	Leu	Glu	Ser	Thr	Arg	Gln	Ile	Ile	Gln	Lys	Val	Asn	Glu		
			420					425					430				
Ser	Val	Val	Ser	Ile	Ala	Ala	Gln	Lys	Phe	Val	Leu	Val	Gln	Glu			
		435					440					445					
Asn	Arg	Pro	Thr	Leu	Thr	Asp	Ile	Val	Glu	Leu	Arg	Asn	His	Ile	Val		
	450					455					460						
Asn	Val	Arg	Gln	Glu	Met	Thr	Leu	Thr	Cys	Glu	Lys	Pro	Ile	Lys	Glu		
465					470					475					480		
Leu	Glu	Val	Lys	Gln	Thr	His	Leu	Glu	Gly	Ala	Leu	Glu	Gln	Glu	His		
				485					490					495			
Ser	Arg	Ser	Ile	Leu	Tyr	Tyr	Glu	Ser	Leu	Asn	Lys	Thr	Leu	Ser	Lys		
			500					505					510				
Leu	Lys	Glu	Val	His	Glu	Gln	Leu	Leu	Ser	Thr	Glu	Gln	Val	Ser	Asp		
		515					520					525					
Gln	Lys	Asn	Ala	Pro	Ala	Ala	Glu	Ser	Val	Ser	Asn	Asn	Val	Thr	Glu		
	530					535					540						
Tyr	Met	Ser	Thr	Leu	His	Glu	Asn	Ile	Lys	Lys	Gln	Ser	Leu	Met	Met		
545					550					555					560		
Leu	Gln	Met	Phe	Glu	Asp	Leu	His	Ile	Gln	Glu	Ser	Lys	Ile	Asn	Asn		
				565					570					575			
Leu	Thr	Val	Ser	Leu	Glu	Met	Glu	Lys	Glu	Ser	Leu	Arg	Gly	Glu	Cys		
			580					585					590				
Glu	Asp	Met	Leu	Ser	Lys	Cys	Arg	Asn	Asp	Phe	Lys	Phe	Gln	Leu	Lys		
		595					600					605					
Asp	Thr	Glu	Glu	Asn	Leu	His	Val	Leu	Asn	Gln	Thr	Leu	Ala	Glu	Val		
	610					615					620						
Leu	Phe	Pro	Met	Asp	Asn	Lys	Met	Asp	Lys	Met	Ser	Glu	Gln	Leu	Asn		
625					630					635					640		
Asp	Leu	Thr	Tyr	Asp	Met	Glu	Ile	Leu	Gln	Pro	Leu	Leu	Glu	Gln	Gly		
				645					650					655			
Ala	Ser	Leu	Arg	Gln	Thr	Met	Thr	Tyr	Glu	Gln	Pro	Lys	Glu	Ala	Ile		
			660					665					670				
Val	Ile	Arg	Lys	Lys	Ile	Glu	Asn	Leu	Thr	Ser	Ala	Val	Asn	Ser	Leu		
			675				680					685					
Asn	Phe	Ile	Ile	Lys	Glu	Leu	Thr	Lys	Arg	His	Asn	Leu	Leu	Arg	Asn		
	690					695					700						
Glu	Val	Gln	Gly	Arg	Asp	Asp	Ala	Leu	Glu	Arg	Arg	Ile	Asn	Glu	Tyr		
705					710					715					720		
Ala	Leu	Glu	Met	Glu	Asp	Gly	Leu	Asn	Lys	Thr	Met	Thr	Ile	Ile	Asn		
				725					730					735			
Asn	Ala	Ile	Asp	Phe	Ile	Gln	Asp	Asn	Tyr	Ala	Leu	Lys	Glu	Thr	Leu		
			740					745					750				
Ser	Thr	Ile	Lys	Asp	Asn	Ser	Glu	Ile	His	His	Lys	Cys	Thr	Ser	Asp		
			755				760					765					
Met	Glu	Thr	Ile	Leu	Thr	Phe	Ile	Pro	Gln	Phe	His	Arg	Leu	Asn	Asp		
	770					775					780						
Ser	Ile	Gln	Thr	Leu	Val	Asn	Asp	Asn	Gln	Arg	Tyr	Asn	Phe	Val	Leu		
785					790					795					800		

Gln	Val	Ala	Lys	Thr	Leu	Ala	Gly	Ile	Pro	Arg	Asp	Glu	Lys	Leu	Asn	
				805					810					815		
Gln	Ser	Asn	Phe	Gln	Lys	Met	Tyr	Gln	Met	Phe	Asn	Glu	Thr	Thr	Ser	
				820					825					830		
Gln	Val	Arg	Lys	Tyr	Gln	Gln	Asn	Met	Ser	His	Leu	Glu	Glu	Lys	Leu	
				835				840					845			
Leu	Leu	Thr	Thr	Lys	Ile	Ser	Lys	Asn	Phe	Glu	Thr	Arg	Leu	Gln	Asp	
				850				855				860				
Ile	Glu	Ser	Lys	Val	Thr	Gln	Thr	Leu	Ile	Pro	Tyr	Tyr	Ile	Ser	Val	
					870					875					880	
Lys	Lys	Gly	Ser	Val	Thr	Asn	Glu	Arg	Asp	Gln	Ala	Leu	Gln	Leu		
				885					890					895		
Gln	Val	Leu	Asn	Ser	Arg	Phe	Lys	Ala	Leu	Glu	Ala	Lys	Ser	Ile	His	
				900					905					910		
Leu	Ser	Ile	Asn	Phe	Phe	Ser	Leu	Asn	Lys	Thr	Leu	His	Glu	Val	Leu	
				915				920					925			
Thr	Met	Cys	His	Asn	Ala	Ser	Thr	Ser	Val	Ser	Glu	Leu	Asn	Ala	Thr	
							935						940			
Ile	Pro	Lys	Trp	Ile	Lys	His	Ser	Leu	Pro	Asp	Ile	Gln	Leu	Leu	Gln	
					950					955					960	
Lys	Gly	Leu	Thr	Glu	Phe	Val	Glu	Pro	Ile	Ile	Gln	Ile	Lys	Thr	Gln	
				965						970					975	
Ala	Ala	Leu	Ser	Asn	Ser	Thr	Cys	Cys	Ile	Asp	Arg	Ser	Leu	Pro	Gly	
				980					985					990		
Ser	Leu	Ala	Asn	Val	Val	Lys	Ser	Gln	Lys	Gln	Val	Lys	Ser	Leu	Pro	
				995				1000					1005			
Lys	Lys	Ile	Asn	Ala	Leu	Lys	Lys	Pro	Thr	Val	Asn	Leu	Thr	Thr	Val	
				1010			1015					1020				
Leu	Ile	Gly	Arg	Thr	Gln	Arg	Asn	Thr	Asp	Asn	Ile	Ile	Tyr	Pro	Glu	
					1030					1035					1040	
Glu	Tyr	Ser	Ser	Cys	Ser	Arg	His	Pro	Cys	Gln	Asn	Gly	Gly	Thr	Cys	
				1045					1050					1055		
Ile	Asn	Gly	Arg	Thr	Ser	Phe	Thr	Cys	Ala	Cys	Arg	His	Pro	Phe	Thr	
				1060				1065					1070			
Gly	Asp	Asn	Cys	Thr	Ile	Lys	Leu	Val	Glu	Glu	Asn	Ala	Leu	Ala	Pro	
				1075			1080					1085				
Asp	Phe	Ser	Lys	Gly	Ser	Tyr	Arg	Tyr	Ala	Pro	Met	Val	Ala	Phe	Phe	
				1090			1095					1100				
Ala	Ser	His	Thr	Tyr	Gly	Met	Thr	Ile	Pro	Gly	Pro	Ile	Leu	Phe	Asn	
					1110					1115					1120	
Asn	Leu	Asp	Val	Asn	Tyr	Gly	Ala	Ser	Tyr	Thr	Pro	Arg	Thr	Gly	Lys	
				1125					1130					1135		
Phe	Arg	Ile	Pro	Tyr	Leu	Gly	Val	Tyr	Val	Phe	Lys	Tyr	Thr	Ile	Glu	
				1140				1145					1150			
Ser	Phe	Ser	Ala	His	Ile	Ser	Gly	Phe	Leu	Val	Val	Asp	Gly	Ile	Asp	
				1155			1160					1165				
Lys	Leu	Ala	Phe	Glu	Ser	Glu	Asn	Ile	Asn	Ser	Glu	Ile	His	Cys	Asp	
				1170			1175				1180					
Arg	Val	Leu	Thr	Gly	Asp	Ala	Leu	Leu	Glu	Leu	Asn	Tyr	Gly	Gln	Glu	
				1185			1190			1195					1200	
Val	Trp	Leu	Arg	Leu	Ala	Lys	Gly	Thr	Ile	Pro	Ala	Lys	Phe	Pro	Pro	
				1205				1210						1215		
Val	Thr	Thr	Phe	Ser	Gly	Tyr	Leu	Leu	Tyr	Arg	Thr					
				1220				1225								

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<220>
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<400> 130
Arg Gly Asp Ser
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<210> 131
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<213> Homo sapiens

<400> 131
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1 5 10 15
Gly Cys Phe Leu Gly Asp Val Gly Phe Trp Val Glu Arg Thr Pro Val
20 25 30
His Glu Ala Ala Gln Arg Gly Glu Ser Leu Gln Leu Gln Gln Leu Ile
35 40 45
Glu Ser Gly Ala Cys Val Asn Gln Val Thr Val Asp Ser Ile Thr Pro
50 55 60
Leu His Ala Ala Ser Leu Gln Gly Gln Ala Arg Cys Val Gln Leu Leu
65 70 75 80
Leu Ala Ala Gly Ala Gln Val Asp Ala Arg Asn Ile Asp Gly Ser Thr
85 90 95
Pro Leu Cys Asp Ala Cys Ala Ser Gly Ser Ile Glu Cys Val Lys Leu
100 105 110
Leu Leu Ser Tyr Gly Ala Lys Val Asn Pro Pro Leu Tyr Thr Ala Ser
115 120 125
Pro Leu His Glu Ala Ser Phe Pro Arg Leu Leu Ser Thr Leu Ala Ser
130 135 140
Thr Pro Trp Ile Asn
145

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<211> 206
<212> PRT
<213> Homo sapiens

<400> 132
Met Ala Ala Asn Lys Pro Lys Gly Gln Asn Ser Leu Ala Leu His Lys
1 5 10 15
Val Ile Met Val Gly Ser Gly Gly Val Gly Lys Ser Ala Leu Thr Leu
20 25 30
Gln Phe Met Tyr Asp Glu Phe Val Glu Asp Tyr Glu Pro Thr Lys Ala
35 40 45
Asp Ser Tyr Arg Lys Lys Val Val Leu Asp Gly Glu Glu Val Gln Ile
50 55 60
Asp Ile Leu Asp Thr Ala Gly Gln Glu Asp Tyr Ala Ala Ile Arg Asp
65 70 75 80
Asn Tyr Phe Arg Ser Gly Glu Gly Phe Leu Cys Val Phe Ser Ile Thr
85 90 95
Glu Met Glu Ser Phe Ala Ala Thr Ala Asp Phe Arg Glu Gln Ile Leu
100 105 110
Arg Val Lys Glu Asp Glu Asn Val Pro Phe Leu Leu Val Gly Asn Lys
115 120 125
Ser Asp Leu Glu Asp Lys Arg Gln Val Ser Val Glu Ala Lys Asn
130 135 140
Arg Ala Glu Gln Trp Asn Val Asn Tyr Val Glu Thr Ser Ala Lys Thr
145 150 155 160

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Arg	Ala	Asn	Val	Asp	Lys	Val	Phe	Phe	Asp	Leu	Met	Arg	Glu	Ile	Arg
			165						170					175	
Ala	Arg	Lys	Met	Glu	Asp	Ser	Lys	Glu	Lys	Asn	Gly	Lys	Lys	Lys	Arg
			180					185					190		
Lys	Ser	Leu	Ala	Lys	Arg	Ile	Arg	Glu	Arg	Cys	Cys	Ile	Leu		
		195					200					205			

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 <213> Homo sapiens

<400> 133															
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Val	Asn	Tyr	Leu	Gly	Gly	Thr	Phe	Pro	Gly	Asp	Ile	Cys	Ser	Glu	Glu
			20					25					30		
Asn	Gln	Ile	Val	Ser	Ser	Tyr	Ala	Ser	Lys	Val	Cys	Phe	Glu	Ile	Glu
		35					40					45			
Glu	Asp	Tyr	Lys	Asn	Arg	Gln	Phe	Leu	Gly	Pro	Glu	Gly	Asn	Val	Asp
	50					55					60				
Val	Glu	Leu	Ile	Asp	Lys	Ser	Thr	Asn	Arg	Tyr	Ser	Val	Trp	Phe	Pro
65					70					75					80
Thr	Ala	Gly	Trp	Tyr	Leu	Trp	Ser	Ala	Thr	Gly	Leu	Gly	Phe	Leu	Val
			85						90					95	
Arg	Asp	Glu	Val	Thr	Val	Thr	Ile	Ala	Phe	Gly	Ser	Trp	Ser	Gln	His
			100					105					110		
Leu	Ala	Leu	Asp	Leu	Gln	His	His	Glu	Gln	Trp	Leu	Val	Gly	Gly	Pro
		115					120					125			
Leu	Phe	Asp	Val	Thr	Ala	Glu	Pro	Glu	Glu	Ala	Val	Ala	Glu	Ile	His
	130					135					140				
Leu	Pro	His	Phe	Ile	Ser	Leu	Gln	Gly	Glu	Val	Asp	Val	Ser	Trp	Phe
145					150					155					160
Leu	Val	Ala	His	Phe	Lys	Asn	Glu	Gly	Met	Val	Leu	Glu	His	Pro	Ala
			165						170					175	
Arg	Val	Glu	Pro	Phe	Tyr	Ala	Val	Leu	Glu	Ser	Pro	Ser	Phe	Ser	Leu
			180					185					190		
Met	Gly	Ile	Leu	Leu	Arg	Ile	Ala	Ser	Gly	Thr	Arg	Leu	Ser	Ile	Pro
		195				200						205			
Ile	Thr	Ser	Asn	Thr	Leu	Ile	Tyr	Tyr	His	Pro	His	Pro	Glu	Asp	Ile
	210				215						220				
Lys	Phe	His	Leu	Tyr	Leu	Val	Pro	Ser	Asp	Ala	Leu	Leu	Thr	Lys	Ala
225					230					235					240
Ile	Asp	Asp	Glu	Glu	Asp	Arg	Phe	His	Gly	Val	Arg	Leu	Gln	Thr	Ser
			245						250					255	
Pro	Pro	Met	Glu	Pro	Leu	Asn	Phe	Gly	Ser	Ser	Tyr	Ile	Val	Ser	Asn
			260					265					270		
Ser	Ala	Asn	Leu	Lys	Val	Met	Pro	Lys	Glu	Leu	Lys	Leu	Ser	Tyr	Arg
		275					280					285			
Ser	Pro	Gly	Glu	Ile	Gln	His	Phe	Ser	Lys	Phe	Tyr	Ala	Gly	Gln	Met
	290				295						300				
Lys	Glu	Pro	Ile	Gln	Leu	Glu	Ile	Thr	Glu	Lys	Arg	His	Gly	Thr	Leu
305					310					315					320
Val	Trp	Asp	Thr	Glu	Val	Lys	Pro	Val	Asp	Leu	Gln	Leu	Val	Ala	Ala
			325						330					335	
Ser	Ala	Pro	Pro	Pro	Phe	Ser	Gly	Ala	Ala	Phe	Val	Lys	Glu	Asn	His
			340					345					350		
Arg	Gln	Leu	Gln	Ala	Arg	Met	Gly	Asp	Leu	Lys	Gly	Val	Leu	Asp	Asp
		355					360					365			
Leu	Gln	Asp	Asn	Glu	Val	Leu	Thr	Glu	Asn	Glu	Lys	Glu	Leu	Val	Glu
		370				375						380			

Gln	Glu	Lys	Thr	Arg	Gln	Ser	Lys	Asn	Glu	Ala	Leu	Leu	Ser	Met	Val
385					390					395					400
Glu	Lys	Lys	Gly	Asp	Leu	Ala	Leu	Asp	Val	Leu	Phe	Arg	Ser	Ile	Ser
				405					410					415	
Glu	Arg	Asp	Pro	Tyr	Leu	Val	Ser	Tyr	Leu	Arg	Gln	Gln	Asn	Leu	
			420					425					430		

<210> 134
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 <213> Homo sapiens

<400> 134															
Met	Gly	Val	Gly	Arg	Leu	Asp	Met	Tyr	Val	Leu	His	Pro	Pro	Ser	Ala
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Gly	Ala	Glu	Arg	Thr	Leu	Ala	Ser	Val	Cys	Ala	Leu	Leu	Val	Trp	His
			20					25					30		
Pro	Ala	Gly	Pro	Gly	Glu	Lys	Val	Val	Arg	Val	Leu	Phe	Pro	Gly	Cys
		35					40					45			
Thr	Pro	Pro	Ala	Cys	Leu	Leu	Asp	Gly	Leu	Val	Arg	Leu	Gln	His	Leu
	50				55						60				
Arg	Phe	Leu	Arg	Glu	Pro	Val	Val	Thr	Pro	Gln	Asp	Leu	Glu	Gly	Pro
65				70					75					80	
Gly	Arg	Ala	Glu	Ser	Lys	Glu	Ser	Val	Gly	Ser	Arg	Asp	Ser	Ser	Lys
				85					90				95		
Arg	Glu	Gly	Leu	Leu	Ala	Thr	His	Pro	Arg	Pro	Gly	Gln	Glu	Arg	Pro
			100					105					110		
Gly	Val	Ala	Arg	Lys	Glu	Pro	Ala	Arg	Ala	Glu	Ala	Pro	Arg	Lys	Thr
		115					120					125			
Glu	Lys	Glu	Ala	Lys	Thr	Pro	Arg	Glu	Leu	Lys	Lys	Asp	Pro	Lys	Pro
	130					135					140				
Ser	Val	Ser	Arg	Thr	Gln	Pro	Arg	Glu	Val	Arg	Ala	Ala	Ser	Ser	
145					150				155					160	
Val	Pro	Asn	Leu	Lys	Lys	Thr	Asn	Ala	Gln	Ala	Ala	Pro	Lys	Pro	Arg
				165					170					175	
Lys	Ala	Pro	Ser	Thr	Ser	His	Ser	Gly	Phe	Pro	Pro	Val	Ala	Asn	Gly
			180					185					190		
Pro	Arg	Ser	Pro	Pro	Ser	Leu	Arg	Cys	Gly	Glu	Ala	Ser	Pro	Pro	Ser
		195					200					205			
Ala	Ala	Cys	Gly	Ser	Pro	Ala	Ser	Gln	Leu	Val	Ala	Thr	Pro	Ser	Leu
	210					215					220				
Glu	Leu	Gly	Pro	Ile	Pro	Ala	Gly	Glu	Glu	Lys	Ala	Leu	Glu	Leu	Pro
225					230					235					240
Leu	Ala	Ala	Ser	Ser	Ile	Pro	Arg	Pro	Arg	Thr	Pro	Ser	Pro	Glu	Ser
				245					250					255	
His	Arg	Ser	Pro	Ala	Glu	Gly	Ser	Glu	Arg	Leu	Ser	Leu	Ser	Pro	Leu
			260					265					270		
Arg	Gly	Gly	Glu	Ala	Gly	Pro	Asp	Ala	Ser	Pro	Thr	Val	Thr	Thr	Pro
	275						280					285			
Thr	Val	Thr	Thr	Pro	Ser	Leu	Pro	Ala	Glu	Val	Gly	Ser	Pro	His	Ser
	290					295					300				
Thr	Glu	Val	Asp	Glu	Ser	Leu	Ser	Val	Ser	Phe	Glu	Gln	Val	Leu	Pro
305					310					315					320
Pro	Ser	Ala	Pro	Thr	Ser	Glu	Ala	Gly	Leu	Ser	Leu	Pro	Leu	Arg	Gly
				325				330						335	
Pro	Arg	Ala	Arg	Arg	Ser	Ala	Ser	Pro	His	Asp	Val	Asp	Leu	Cys	Leu
			340					345					350		
Val	Ser	Pro	Cys	Glu	Phe	Glu	His	Arg	Lys	Ala	Val	Pro	Met	Ala	Pro
	355						360					365			
Ala	Pro	Ala	Ser	Pro	Gly	Ser	Ser	Asn	Asp	Ser	Ser	Ala	Arg	Ser	Gln
	370					375					380				

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Glu Arg Ala Gly Gly Leu Gly Ala Glu Glu Thr Pro Pro Thr Ser Val
 385 390 395 400
 Ser Glu Ser Leu Pro Thr Leu Ser Asp Ser Asp Pro Val Pro Leu Ala
 405 410 415
 Pro Gly Ala Ala Asp Ser Asp Glu Asp Thr Glu Gly Phe Gly Val Pro
 420 425 430
 Arg His Asp Pro Leu Pro Asp Pro Leu Lys Val Pro Pro Pro Leu Pro
 435 440 445
 Asp Pro Ser Ser Ile Cys Met Val Asp Pro Glu Met Leu Pro Pro Lys
 450 455 460
 Thr Ala Arg Gln Thr Glu Asn Val Ser Arg Thr Arg Lys Pro Leu Ala
 465 470 475 480
 Arg Pro Asn Ser Arg Ala Ala Ala Pro Lys Ala Thr Pro Val Ala Ala
 485 490 495
 Ala Lys Thr Lys Gly Leu Ala Gly Gly Asp Arg Ala Ser Arg Pro Leu
 500 505 510
 Ser Ala Arg Ser Glu Pro Ser Glu Lys Gly Gly Arg Ala Pro Leu Ser
 515 520 525
 Arg Lys Ser Ser Thr Pro Lys Thr Ala Thr Arg Gly Pro Ser Gly Ser
 530 535 540
 Ala Ser Ser Arg Pro Gly Val Ser Ala Thr Pro Pro Lys Ser Pro Val
 545 550 555 560
 Tyr Leu Asp Leu Ala Tyr Leu Pro Ser Gly Ser Ser Ala His Leu Val
 565 570 575
 Asp Glu Glu Phe Phe Gln Arg Val Arg Ala Leu Cys Tyr Val Ile Ser
 580 585 590
 Gly Gln Asp Gln Arg Lys Glu Glu Gly Met Arg Ala Val Leu Asp Ala
 595 600 605
 Leu Leu Ala Ser Lys Gln His Trp Asp Arg Asp Leu Gln Val Thr Leu
 610 615 620
 Ile Pro Thr Phe Asp Ser Val Ala Met His Thr Trp Tyr Ala Glu Thr
 625 630 635 640
 His Ala Arg His Gln Ala Leu Gly Ile Thr Val Leu Gly Ser Asn Gly
 645 650 655
 Met Val Ser Met Gln Asp Asp Ala Phe Pro Ala Cys Lys Val Glu Phe
 660 665 670

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 His His His His His His
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